

A REVISION OF THE ARHOPALA GROUP OF ORIENTAL LYCAENIDAE (LEPIDOPTERA : RHOPALOCERA)

By W. H. EVANS

Honorary Associate British Museum (Natural History)

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INTRODUCTION

THE *Arhopala* group of genera was first constituted as such by De Nicéville (1890). A revision of the group, which he called the *Amblypodia* group (see Appendix 1), was published by Bethune-Baker (1903). Swinhoe (1910) elevated the group to subfamily rank, *Amblypodiinae*. Evans (1925, 1932) reverted to the name *Amblypodia* including in the group the genera *Iraota*, *Horsfieldia*, *Thaduka*, *Mahathala* and *Amblypodia* (= *Arhopala*). But in this review I intend to deal only with the last of these genera: no review is needed for the rest of the group. Corbet (1940, see Appendix 1) was the first author to demonstrate clearly that *Arhopala*, as currently used, and not *Amblypodia*, is the correct generic name for the 187 species included in this review, though, as will appear later, I have found it necessary to restrict the application of that name.

Doherty (1889) remarked that *Arhopala* was a cumbrous genus and that every opportunity should be taken of dividing it. This is easier said than done in a convincing manner. Moore for instance created a number of genera, which were not accepted by subsequent authors. What is the definition of a genus? Long ago I put that question to Professor W. T. M. Forbes: he replied that you want two characters, one of which must be structural. I put the same question to the late Lord Walter Rothschild: he replied that a species was a nature-made entity, but that a genus was a man-made conception created for his own convenience. It is no easy matter to decide whether a particular character difference is of generic value. One should bear in mind that the golden rule is that there is no golden rule and that one cannot modify nature, but that one can adapt one's conceptions to the

circumstances of any particular case. I have described and named 124 genera and have tried to keep within the limits, which may be regarded on one hand as Rothschild's abstention from dividing up *Papilio* in his work on that genus, and on the other the division by B. C. S. Warren and others of the well-beloved and well-known genus *Argynnis* into numerous genera based on minor differences in the genitalia.

In my Hesperiid work I found that the genitalia always furnished excellent clues to identification and classification. In the *Arhopala* group the genitalia give very little assistance. But the long ovipositor of *Panchala* and the spiked uncus of *Flos* serve to define these genera, while in certain species (B11 to 14) identification is difficult without a genitalia examination. There is very little variation in venation except in respect of the hind wing cell. Its abnormal shape defines the genus *Arhopala* and its great length separates the new genus *Aurea*. No further structural differences of generic value could be found. One hundred and fifty-eight species remain to be placed in the genus *Narathura*, which has been divided into 12 groups lettered *A* to *L*, the other 4 genera continuing as *M* to *P* for facility of Index reference. The larger groups have been divided into sub-groups.

The general key and the keys for each group and genus have been framed in accordance with the system introduced in my *Identification of Indian Butterflies*. I have also used the same simple abbreviations adopted in that work, viz.: F = fore wing, H = hind wing : upf = upperside of fore wing : unh = underside of hind wing, etc., because these, like the keys, have proved both convenient and easy to operate.

Following the year of publication after the author's name, I have given the type locality and the location of the type, if known ; and a list of the material in the British Museum (Natural History). The early, artist-made illustrations, often badly reproduced, are generally unsatisfactory as it was not recognized that identification is dependent primarily on the disposition of the underside markings. Corbet published good photographs of the undersides in 1946 and of the genitalia in 1941 of the Malayan species. These have been cited, "g" being added for the genitalia figures. For other species the best available figure has been cited (generally from Seitz).

The treatment of the species in the keys may appear uneven. When identification is dependent on a single easily-recognized character, there is no need to say more. Where identification is difficult, as much assistance as is available has been given. In some cases, such as further information about *Panchala* in addition to the genitalia character, any description would have to be lengthy and probably would nevertheless be unsatisfactory. It is assumed that students and collectors will have available some book containing illustrations, such as Seitz.

Subspecies have been arranged from west to east. Generally the differences are "geographical" and are well marked, but in certain cases (e.g. *muta* B4 and *philander* H10) several sub-species appear to fly together, due perhaps to some ecological cause or to "invasions" from other areas.

The Appendix contains details of various nomenclature difficulties and is referred to in the keys.

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GENERAL KEY TO GENERA AND GROUPS

- A (P). ♂ genitalia, sides of uncus at dorsal end rounded.
 Aa (O). ♀ ovipositor short and blunt.
 Ab (N). H end cell angled, lower part parallel to termen, upper part inclined to midway between the central and outer spots in space 7.
 Ac (M). H cell not longer than half the wing.
 Genus *Narathura* Moore 1878: type *hypomuta* Hewitson, fixed by author. One hundred and fifty-eight species in 12 groups.
 Synonyms *Nilasera* Morre 1881: type *centaurus* Fabricius, fixed by author. *Satadra* Moore 1884: type *atrax* Hewitson, fixed by author. *Darasana* Moore 1884: type *perimuta* Moore, fixed by author.
 Ad (L). Markings more or less complete.
 Ae (C). Unh discal spots in spaces 7, 6, 5 macular and with their centres in line.
 Af (B). Tailed.
Anthelus group. Twenty-three species.
- B (Af). Not tailed.
Epimuta Group. Twenty-five species.
- C (Ae). Not as in Ae.
 Ca (K). H tornus more or less produced and angled; termen tailed or dentate.
 Cb (J). F termen even, not conspicuously falcate or crenulate. H outer half of dorsum not conspicuously excavate.
 Cc (G). Unh discal band completely dislocated at vein 2. Tailed at end of vein 2 H.
 Cd (D). H with an additional white-tipped tail at end of vein 3.
Abseus group. Three species.
- D (Cd). H no tail at end of vein 3.
 Da (E). Unh with a white streak at base of space 8.
Theba group. Four species.
- E (Da). Unh with the usual spot at base of space 8.
 Ea (F). Unh discal band unbroken from costa to vein 2. H with conspicuously projecting tornal lobe.
Hercules group. Two species.
- F (Ea). Unh discal band broken at vein 6 as usual.
Democritus group. Twenty-eight species.
- G (Cc). Unh discal band not completely dislocated at vein 2.
 Ga (H). Unf discal band broken at vein 4 and the upper part is directed to the termen.
Eumolphus group. Twenty-two species.

- H* (Ga). Unf discal band unbroken, or only slightly dislocated at vein 4 and the upper part is directed to the dorsum.
Ha (I). *H* with long tail, ciliate throughout on its dorsal side.
Centaurus group. Fifteen species.
- I* (Ha). *H* tail filamentous, a tooth or absent.
Vihara group. Eighteen species.
- J* (Cb). *F* termen conspicuously falcate or crenulate. *H* outer half of dorsum conspicuously excavate.
Rama group. Six species.
- K* (Ca). *H* tornus rounded, dorsum and costa sub-equal: termen not tailed or dentate.
Perimuta group. Seven species.
- L* (Ad). Below, markings more or less incomplete. Unf no basal spot in cell. *H* termen dentate.
Fulla group. Four species.
- M* (Ac). *H* cell longer than half wing: tail short and stout. ♂ above, green.
 Genus ***Aurea*** nov.: type *Arhopala aurea* Hewitson; fixed by author. Four species.
- N* (Ab). *H* end cell straight and inclined, directed to the central spot in space 7.
 Genus ***Arhopala*** Boisduval 1832: type *phryxus* Boisduval, fixed by Scudder 1870. Five species. Synonym *Iois* Doherty 1889, undescribed, placed as synonym by De Nicéville 1890.
- O* (Aa). ♀ ovipositor long, tapered, bent down at tip.
 Genus ***Panchala*** Moore 1882: type *ganesa* Moore, fixed by author. Eight species.
 Synonym *Acesina* Moore 1884; type *paraganesa* De Nicéville, fixed by author.
- P* (A). ♂ genitalia, sides of uncus at dorsal end produced and pointed. Markings of a different type.
 Genus ***Flos*** Doherty 1889: type *apidanus* Cramer, fixed by author. Thirteen species.
 Synonym *Amblypodia* Auctorum nec Horsfield (see Appendix 1).

Genus **NARATHURA** Moore 1878

A. ANTHELUS GROUP OF NARATHURA

- 1a (9a). Unf with a spot at base of space 10.

Anthelus Sub-group

- 1b (6a). Unf 1 or more spots in space 11.
 1 (2a). Unh 2 spots at base of space 8; unf 3 spots in space 11.
anthelus. Nine sub-species. Fig. Corbet 3 and 3 g.
 (a) ♂ *F* 30 mm., shining blue, border 2½ mm. at apex to ½ mm. at dorsum. ♀ paler blue, upf border 8 mm. at apex to 2 at dorsum.
 Sub-sp. ***anthelus*** Doubleday & Hewitson 1852: ♂ Moulmein; type B.M. 20 ♂, 18 ♀ Ataran, Burma.
 (b) Above and below much darker. Unh all markings prominent.
 Sub-sp. ***anthea*** Evans 1925: ♂ Mergui; type B.M. 4 ♂, 4 ♀ Tavoy. 17 ♂, 17 ♀ Mergui. 11 ♂, 11 ♀ Victoria Point. 2 ♂ W. Siam. 1 ♂ Annam. 1 ♂ Peninsula Siam.
 (c) Intermediate to *anunda*. ♀ more purple.
 Sub-sp. ***grahami*** Corbet 1941: ♂ Malaya; type B.M. 6 ♂, 5 ♀ Malaya.
 (d) Darker. ♂ upf border a thread. ♀ purple, border 10 mm. at apex to 5 mm. at dorsum.
 Below as *anthelus*.
 Sub-sp. ***anunda*** Hewitson 1869: ♂ Borneo; type B.M. 9 ♂, 3 ♀. Sumatra. 1 ♂ Banka 11 ♂, 3 ♀ Borneo.

(e) Above as *amunda*. Below, looking very different; uniform, rather dark brown, markings all equally prominent, instead of the subcostal markings unh being more prominent than the rest: no whitish subcostal area.

Sub-sp. *majestatis* Fruhstorfer 1913: ♂ Nias; type B.M. 5 ♂, 6 ♀ Nias.

(f) ♂ above, pale shining blue, border as in *anthelus*. Unh markings faint except at costa.

Sub-sp. *jabadia* Fruhstorfer 1913: ♂ Java; type B.M. 6 ♂ Java.

(g) More like *amunda*, but rather bluer.

Sub-sp. *saturationior* Staudinger 1889: Palawan. 7 ♂, 6 ♀ Palawan.

(h) ♂ above blue as *jabadia*, border as *amunda*. Unh much darker, all markings equally conspicuous, subcostal whitish area present. ♀ above brown, darker apically, no blue area.

Sub-sp. *sotades* Fruhstorfer 1913: ♂ Mindanao; type B.M. 18 ♂, 8 ♀ Mindanao.

(c) As *sotades*, but ♀ purple-blue with very broad dark borders, 12 mm. at apex to 9 at dorsum; uph 5 mm. mid-termen and veins 2, 3, 4 darkened.

Sub-sp. *impar nov.*: ♀ Mindoro; type B.M. 10 ♂, 2 ♀ Mindoro.

2a (1). Unh not more than 1 spot at base of space 8.

2 (3a). Unf 2 spots in space 11.

auxesia. Two sub-species. Fig. Seitz, Pl. 150 B d.

(a) ♀ F 24 mm. Above, very pale blue, whitish mid F and a dark spot end cell; border 5 mm. at apex F to 2 mm. at dorsum; veins darkened.

Sub-sp. *auxesia* Hewitson 1862: ♀ Salwatty; type B.M. Also 1 ♀ New Guinea (ex coll. Hewitson).

(b) ♀ purple-blue, with whitish bordered dark spot at end of cell. ♂ dark purple-blue, border 1 mm.

Sub-sp. *salvia nov.*: ♀ Salwatty (ex coll. Hewitson); type B.M. Also 2 ♀ Dutch New Guinea. 2 ♂, 5 ♀ Mefor Is., Geelvink Bay.

3a (2). Unf 1 spot in space 11.

3 (4a). Unh costa broadly darkened, followed by a white fascia from base to termen. ♂ F 23 mm.: pale blue, border 4 mm. at apex to $\frac{1}{2}$ mm. at termen. Fig. Corbet 1 and 1 g.

ijauensis Bethune-Baker 1897: ♂ Perak; type B.M. 21 ♂, 11 ♀ Ataran. 26 ♂, 26 ♀ Tavoy. 4 ♂, 11 ♀ Mergui. 1 ♂, 8 ♀ Victoria Point. 1 ♂, 1 ♀ Siam. 2 ♂, 8 ♀ Peninsular Siam. 2 ♂ Langkawi Is. 3 ♂ Malaya.

Synonyms *subfasciata* Moore 1883: ♂ Tavoy, type B.M. Homonym of *subfasciata* Moore 1881 (L.4).

simonea Corbet 1941: ♂ Tavoy; type B.M.

4a (3). Unh uniform.

4 (5). Unf spots in spaces 4 to 6 as a band, spot in 7 out of line.

eridanus. Five sub-species. Fig. Seitz 148a.

(a) As *eridanus*, but unf spots in spaces 7, 10, 11 are much larger and more conspicuous.

Sub-sp. *dilutior* Staudinger 1889: ♂ Palawan. 4 ♂, 1 ♀ Palawan. 1 ♂, 1 ♀ Cagayan Is., near Mindanao.

(b) ♂ F 27 mm., border a thread. ♀ above generally all brown.

Sub-sp. *lewara* Ribbe 1926: ♂ Celebes. 2 ♂, 3 ♀ Celebes.

Synonym *itama* Ribbe 1926: ♀ Celebes; all brown form.

(c) ♂ F 25 mm., border 3 mm. at apex to $\frac{1}{2}$ mm. at dorsum. ♀ brown with some blue scaling at bases F and H.

Sub-sp. *elfeta* Hewitson 1869: ♀ Sula Mangoli; type B.M. 12 ♂, 5 ♀ Sula Mangoli.

Synonym *viola* Röber 1887: ♂ Bangkei (see Appendix 2).

(d) ♂ F 27 mm., as *lewara*. ♀ pale blue basally, outwardly whitening, border F 9 mm. at apex, bearing small blue spots in spaces 4, 5; at dorsum 4 mm.; dark spot end cell; border 10 mm. on H.

- Sub-sp. *padus* Felder 1865: ♂ Halmaheira; type B.M. 18 ♂, 3 ♀ Halmaheira.
 (e) ♂ F 20 mm., border a thread. ♀ as for *padus*, but seems to be very variable.
- Sub-sp. *eridanus* Felder 1860: ♀ Amboina; type B.M. 1 ♂, 3 ♀ Amboina. 1 ♀ Ceram.
 Synonym *polita* Röber 1887: ♂ Ceram.
- 5 (4). Unf spots in spaces 4 to 7 on a regular curve.
anarte. Two sub-species. Fig. Corbet 4 and 5 g.
 (a) ♂ F 30 mm.: shining blue, turning violet apically on F, border $1\frac{1}{2}$ to $\frac{1}{2}$ mm.: ♀ purple blue with broad borders.
- Sub-sp. *anarte* Hewitson 1862: ♂ ? loc.; type B.M. 2 ♂, 1 ♀ Upper Assam. 15 ♂, 5 ♀ Ataran. 2 ♂, 2 ♀ Tavoy. 13 ♂, 4 ♀ Siam. 2 ♂, 1 ♀ Malaya. 1 ♂, 1 ♀ Sumatra. 1 ♂ Borneo.
 Synonym *morphicolor* Corbet 1941: ♂ Malaya; type B.M.
 (b) Below, all markings darker. Unf costal spots in spaces 7 and 10 rectangular, overlapping. Unh a more or less conspicuous white streak from base to termen over vein 6.
- Sub-sp. *auzea* De Nicéville 1896: ♂ Java. Fig. Corbet 4 g. 1 ♂ Java.
- 6a (1b). Unf no spot in space 11.
 6 (7a). Unf no costal spot in space 10. Large, ♂ F 34 mm. Generally like *anthelus auzea*.
trionoëa Semper 1890: ♂ Mindanao. 1 ♂ Luzon.
- 7a (6). Unf with a costal spot in space 10.
 7 (8). Below, purple washed, markings conspicuous. Unh costal area broadly paler. ♂ F 22 mm., dark blue, border $\frac{1}{2}$ mm. Fig. Corbet 2 and 2 g.
achelous Hewitson 1862: ♂ Singapore; type B.M. 4 ♂ Malaya. 12 ♂, 6 ♀ Borneo.
- 8 (7). Below, uniform brown, markings inconspicuous, hardly darker than ground, no purple wash nor a paler subcostal area unh. Above as *achelous*.
brooksiana Corbet 1941: ♂ Sumatra; type B.M. 1 ♂ Mergui. 1 ♂ Malaya. 4 ♂, 1 ♀ Sumatra. 1 ♂ Batoe Is.
 Synonym *malu* Corbet 1946: ♂ Mergui; type B.M.
- 9a (1a). Unf no spot at base of space 10.
 9b (18a). Unf discal markings macular.

Camdeo Sub-group

- 9 (10a). Unf with a spot at base of space 7. ♂ F 18 mm., entirely dark brown, except for basal blue scaling. ♀ pale blue with broad dark borders. Fig. Seitz 148b.
annulata Felder 1860: ♂ Amboina; type B.M. 2 ♂ Palawan. 1 ♀ Philippines. 1 ♂ Celebes. 14 ♂, 3 ♀ Amboina. 1 ♀ Buru.
 Synonyms *tristis* Röber 1887: ♀ Bangkei.
erebina Staudinger 1889: ♂ Palawan.
- 10a (9). Unf no spot at base of space 7.
 10 (11a). Unf no discal spot in space 7.
johoreana. Two sub-species. Fig. Corbet 10.
 (a) ♀ F 20 mm. Above purple-blue, border 5 mm. at apex to 2 at dorsum: H 4 mm. and veins broadly darkened.
- Sub-sp. *johoreana* Corbet 1941: ♀ Malaya; type B.M. 2 ♀ Malaya.
 (b) ♂ 18 mm., sexes alike, blue, not purple, border 4 mm. at apex to 2 mm. at dorsum: H 3 mm., veins not darkened.
- Sub-sp. *kaltima* nov.: ♂ Nias; type B.M. 4 ♂, 1 ♀ Nias.

11a (10). Unf with a discal spot in space 7.

11 (12a). Unf the spot in space 7 in continuation of those in spaces 4 to 6. ♂ F 21 mm., pale silvery metallic blue, border 1 mm. at apex, vanishing at dorsum. ♀ bluish-white with broad border and dark spot at end cell. Unh whitish below costa inside the discal band.

varro Fruhstorfer 1913: ♀ Karen Hills. Fig. Corbet 7 and 13 g as *karennia*. 3 ♂, 3 ♀ Karens. 1 ♀ Ataran.

Synonym *karennia* Evans 1925: ♂ Karens; type B.M.

12a (11). Unf spot in space 7 detached from rest of band.

12b (14a). Unf lower part of end-cell spot expanded and the central spot in space 1b elongate.

12 (13). Below, markings conspicuously white-edged.

dispar. Four sub-species. Fig. Corbet 8 and 11 g.

(a) ♂ F 26 mm., plain blue, border a thread. ♀ much darker blue than *dispar* and borders broader, 7 mm. F and 10 mm. H; a black spot at end of cell F. Below as *dispar*.

Sub-sp. *diluta* Evans 1932: ♂ Maymyo; type B.M. 26 ♂, 26 ♀ N. Shan States. Fig. Corbet 12 g.

(b) ♂ upf with a dark spot end cell surrounded by a whitish area. Unf discal band broad. ♀ above, pale blue with 2½ mm. border F and 1 mm. H.

Sub-sp. *dispar* Riley & Godfrey 1921: ♂ N. Siam; type B.M. Also 1 ♂, 3 ♀ S. Shan States, Burma.

(c) Above, as *diluta*: below no white areas, markings large. ♀ bluish-purple with broad borders.

Sub-sp. *fracta* nov.: ♂ Karen Hills; type B.M. 3 ♂, 2 ♀ Karens. Also 1 ♀ "Margherita, Assam".

(d) ♂ F 22 mm. Above as *diluta*, but the second specimen has a dark spot at end of cell upf and a whitish area around it. Below, as *dispar*, but markings smaller.

Sub-sp. *chota* nov.: ♂ Ataran, Burma; type B.M. 2 ♂ Ataran.

(e) ♀ F 25 mm. Above, broadly white about a black spot at end of cell. Below mostly white with reduced markings. Fig. Corbet 9. Unique.

Sub-sp. *pendleburyi* Corbet 1941: ♀ Malaya; type B.M.

13 (12). Below, markings inconspicuous, edged pale brown.

semperi. Two sub-species.

(a) ♂ pale purple, border a thread. ♀ purple, no whitish area beyond end cell. Fig. Corbet 6 and 9 g.

Sub-sp. *camdana* Corbet 1941: ♀ Malaya; type B.M. 1 ♂, 1 ♀ Malaya. ♂ 1, 1 ♀ Sumatra.

(b) ♂ F 25 mm., purple, border 1½ mm. at apex to 1 at dorsum: conspicuous black spot at end cell. ♀ purple, whitish about end cell upf, border 5 mm.

Sub-sp. *semperi* Bethune-Baker 1896: ♂ Borneo; type B.M. 2 ♂, 1 ♀ Borneo.

Synonym *panthera* Corbet 1946: ♀ Borneo; type B.M.

14a (12b). Unh lower part end-cell spot not expanded and central spot in space 1b not elongate.

14b (17). Unf discal spots in spaces 2, 3 not smaller than those in spaces 4 to 6.

14c (16). Below, grey, markings black, conspicuous.

14 (15). Below pale grey. ♂ F > 25 mm.

camdeo. Two sub-species. Fig. Seitz 149d.

(a) ♂ F 29 mm., pale violet-blue with a discal white area, border a thread, usually a prominent end-cell spot.

Sub-sp. *camdeo* Moore 1857: N. India; type B.M. 12 ♂, 12 ♀ Sikkim. 27 ♂, 27 ♀ Assam. 1 ♂, 2 ♀ N. Burma. 2 ♂, 2 ♀ Ataran. 1 ♂ Siam. 3 ♂ Tonkin.

- (b) Smaller, ♂ F 25 mm. ♀ without the double spot beyond end cell upf. Below, markings not so black and rather larger.
Sub-sp. *sebonga* Tytler 1926: ♂ Manipur; type B.M. 5 ♂ Manipur. 1 ♂, 2 ♀ N. Burma.
- 15 (14). Below dark grey. ♂ F < 25 mm.
opalina. Two sub-species. Fig. Corbet 5 and 8 g.
(a) Like *camdeo*, but much smaller, ♂ F 19 mm.
Sub-sp. *opalina* Moore 1880: ♂ "Assam"; type B.M. and 3 ♂, 1 ♀ Siam.
(b) ♂ F 22 mm. Above, no white area or dark spot at end of cell upf. ♀ generally all blue above and small white area may be present beyond end of cell.
Sub-sp. *fruhstorferi* Röber 1897: ♀ "Java"; type B.M.; figured by Piepers & Snellen 1918, *Rhop. Java*, Pl. 24, fig. 108 as *aedias* but unknown to authors: probably from Burma. 5 ♂, 3 ♀ Karens. 3 ♂, 3 ♀ Ataran. 2 ♂, 2 ♀ Tavoy. 2 ♂, 2 ♀ Sumatra.
Synonym *sphendale* Fruhstorfer 1914: ♂ Annam; type lost.
- 16 (14c). Below, brown, markings inconspicuous. ♂ F 24 mm., above pale blue, border a thread. ♀ uniform pale purple blue, border F tapering from 4 mm. at apex to 2 mm. at dorsum: spot at end cell, but no spot beyond it as in *opalina*. Fig. Corbet 11 and 10 g.
azata De Nicéville 1895: ♂ Perak. The figures in *Rhop. Java* are of *aedias*. 1 ♂ Victoria Point, S. Burma. 5 ♂ Malaya. 2 ♂, 1 ♀ Sumatra.
- 17 (14b). Unf discal spots in spaces 2, 3 smaller than those in spaces 4 to 6. ♂ F 28 mm., shining purple-blue, border a thread; like *aedias*. Unf narrow white bar across middle of space 1b: rarely spots at bases of spaces 10 and 7.
hellada. Two sub-species. Fig. Corbet 13 and 7 g.
(a) Generally markings below fainter.
Sub-sp. *ozana* Fruhstorfer 1914: ♂ Sumatra; type B.M. 6 ♂, 4 ♀ Malaya. 9 ♂, 5 ♀ Sumatra. 1 ♂ Borneo.
(b) Below, markings darker.
Sub-sp. *hellada* Fruhstorfer 1914: ♂ Nias; type B.M. 9 ♂, 1 ♀ Nias.
- 18a (9b). Unf discal markings banded, including spots in spaces 2 and 3.

Aedias Sub-group

- 18 (19a). Unf discal spot in space 7 out of line with those in spaces 4 to 6; no white bordered dark area in the basal half of space 1b, as in the very similar *hellada*.
- aedias*. Five sub-species. Fig. Corbet 14 and 14 g as *agnis*.
(a) ♂ F 24 to 29 mm., pale shining blue, turning violet at apex. ♀ with 2 forms, typically blue, border as at apex 8 mm., tapering to 1 mm. at dorsum, 3 mm. on H; second form 10 mm. at apex, 4 mm. at dorsum and 8 mm. on H.
Sub-sp. *yendava* Grose-Smith 1887: ♀ Yendaw Valley, Burma; type B.M. 10 ♂, 2 ♀ Karens. 17 ♂, 3 ♀ Ataran.
Synonym *pallida* Evans 1932: ♂ Karens; type B.M.
(b) Intermediate: ♀ generally blue as in *yendava*.
Sub-sp. *meritatas* Corbet 1941: ♂ Mergui; type B.M. 1 ♂ Tavoy. 8 ♂, 5 ♀ Mergui. 2 ♀ Victoria Point, S. Burma.
(c) ♂ 20 to 30 mm., dark shining blue border a thread. ♀ purple, border 3 to 10 mm. on F and H, variable. Unf discal markings variable, spots in spaces 4 and 7 are usually out of line with those in spaces 2, 3; may be a costal spot in space 10, rarely a spot at base of space 10 and more rarely a spot in space 11.
Sub-sp. *agnis* Felder 1865: ♂ Malacca; type B.M. 1 ♂ Peninsular Siam. 25 ♂, 6 ♀ Malaya. 19 ♂, 13 ♀ Sumatra. 2 ♂ Banka. 18 ♂, 11 ♀ Nias. 18 ♂, 5 ♀ Borneo. 1 ♂ "E. Java".

Synonyms *soter* Fruhstorfer 1913: ♂ Sumatra; type B.M.

sphelys Fruhstorfer 1913: ♂ Nias; type B.M.

hagijs Fruhstorfer 1913: ♂ "E. Java"; type B.M.

(d) ♂ F 23 mm., pale shining blue, no purple or violet tinge. ♀ still paler, border 5 mm. Fig. Corbet 15 g.

Sub-sp. *aedias* Hewitson 1862: ♀ Java; type B.M. 8 ♂, 1 ♀ Java. In *Rhop. Java* fig. of *aedias* is *fruhstorferi* and *azata* is *aedias*.

Synonym *pangeran* Fruhstorfer 1914: ♂ W. Java; type B.M.

(e) Only differs from *agnis* in being smaller and less variable on the underside.

Sub-sp. *oenotria* Hewitson 1869: ♂ Mindanao. 18 ♂ Mindanao.

19a (18). Unf discal spot in space 7 in line with those in spaces 4 to 6.

19b (23). Unf discal spot in space 4 in line with those in spaces 5 to 7.

19c (22). Unf discal band broken at vein 4.

19 (20a). Unh lower part of end-cell spot expanded.

myrzala. Three sub-species. Fig. Corbet 12 and 6 g as *lammas*.

(a) Unh in space 7, white edges to central and discal spots looped together. ♂ F 21 mm., dark violet blue, border 1 mm. ♀ blue.

Sub-sp. *conjuncta* Corbet 1941: ♂ Langkawi Is.; type B.M. 6 ♂, 2 ♀ Langkawi Is.

(b) ♂ duller. ♀ purple.

Sub-sp. *lammas* Corbet 1941: ♂ Malaya; type B.M. 5 ♂ Malaya. 5 ♂, 3 ♀ Borneo.

(c) Unh in space 7 the entire space between the central and discal spots filled by a conspicuous white spot.

Sub-sp. *myrzala* Hewitson 1869: ♂ Mindanao. 10 ♂, 6 ♀ Mindanao.

20a (19). Unh lower part of end-cell spot not expanded.

20 (21). Unf discal band continued into space 1b. ♂ F 21 mm., dark purple-blue, border 3 mm. ♀ paler, border 5 mm.; on H blue colouring very restricted. Fig. Seitz 148d.

dohertyi Bethune-Baker 1903: ♂ Celebes; type B.M. 23 ♂, 14 ♀ Celebes.

21 (20). Unf discal band not continued into space 1b. ♂ F 20 mm., dark violet-blue, border $\frac{3}{4}$ mm. Fig. Corbet 15 and 17 g as *pseudomuta* (see Appendix 5).

delta nov.: ♂ Malaya; type B.M. 6 ♂, 1 ♀ Malaya. 3 ♂, 7 ♀ Sumatra. 2 ♀ Borneo.

22 (19c). Unf discal band not broken at vein 4.

allata. Five sub-species. Fig. Corbet 16 and 18 g as *pandora*.

(a) ♀ purple. Below suffused purple. ♂ F 22 mm.

Sub-sp. *suffusa* Tytler 1915: ♂ Manipur; type B.M. 3 ♂, 1 ♀ Manipur.

(b) ♀ blue. Below as *suffusa*.

Sub-sp. *atarana* Tytler 1926: ♀ Ataran; type B.M. 1 ♀ N. Burma. 1 ♂ N. Shan States.

1 ♀ S. Shan States. 4 ♂, 4 ♀ Ataran.

(c) Below, not suffused purple. ♂ F border 1½ mm. ♀ blue.

Sub-sp. *pandora* Corbet 1941: ♂ Malaya; type B.M. 2 ♂, 3 ♀ Malaya. 2 ♂, 2 ♀ Sumatra.

(d) ♀ purple, otherwise as *pandora*.

Sub-sp. *evandra* Corbet 1941: ♂ Borneo; type B.M. 2 ♂, 2 ♀ Borneo.

(e) Larger, ♂ F 24 mm., border 1 to 2 mm. ♀ purple.

Sub-sp. *allata* Staudinger 1889: ♂ Palawan. 4 ♂, 2 ♀ Palawan. 1 ♂ Mindanao. 2 ♂, 2 ♀ Mindanao.

23 (19b). Unf discal spot in space 4 out of line with the spots in spaces 5 to 7. ♂ F 22 mm., upf with a discal area of modified scales, as in *epimuta*.

atostia. Five sub-species. Fig. Corbet 17 and 16 g as *malayana*.

(a) ♂ above, pale silvery blue, shading to violet: ♀ pale blue.

- Sub-sp. *aria* Evans 1932: ♂ Karens; type B.M. 12 ♂, 5 ♀ Karens. 18 ♂, 18 ♀ Ataran. 22 ♂, 16 ♀ Tavoy. 4 ♂, 4 ♀ Mergui.
 (b) ♂ above, uniform violet-blue; ♀ blue.
- Sub-sp. *malayana* Bethune-Baker 1903: ♂ Singapore; type B.M. 5 ♂, 3 ♀ Mergui. 5 ♂, 5 ♀ Siam. 2 ♂ Indo-China. 4 ♂, 4 ♀ Peninsular Siam. 4 ♂, 6 ♀ Langkawi Is. 20 ♂, 16 ♀ Malaya. 1 ♀ "Java".
- Synonyms *jahara* Corbet 1941: ♂ Mergui; type B.M.
udapa Corbet 1941: ♂ Malaya; type B.M.
 (c) ♂ uniform violet-blue. ♀ purple.
- Sub-sp. *atosia* Hewitson 1863: ♂ Sumatra; type B.M. 15 ♂, 6 ♀ Sumatra. 6 ♂, 9 ♀ Banka. 16 ♂, 13 ♀ Borneo. 4 ♂ Pulo Laut.
 (d) Like *aria*, but borders rather broader.
- Sub-sp. *lurida* Corbet 1941: ♂ Mentawi Is.; type B.M. 1 ♂, 1 ♀ Mentawi Is.
 (e) Like *aria*, but ♂ upf area of modified scales faint.
- Sub-sp. *aricia* Staudinger 1889: ♂ Palawan. None in B.M.

B. EPIMUTA GROUP OF NARATHURA

- 1a (23a). Unf no spots between cell and costa.
 1b (21a). Unf end-cell spot of uniform width throughout.
 1c (11a). Unh discal band dislocated at vein 2 completely or so that the spots on either side do not overlap more than the extent of the inner edge of the spot in space 2 being in line with the outer edge of the spot in space 1c.

Epimuta Sub-group

- 1d (3a). Unf discal spot in 4 not in line with those in spaces 5, 6.
 1 (2). Unf discal spot in space 4 out of line with those in spaces 3, 2. ♂ upf 22 mm. with discal area of modified scales as in *atosia*.
- epimuta*. Three sub-species. Fig. Corbet 20 and 20 g.
 (a) ♂ shining pale blue, turning violet towards apex F, border 2 mm. at apex, tapering to 1 mm. at dorsum and $\frac{1}{2}$ mm. on H. ♀ shining blue, border 7 mm. at apex tapering to 2 mm. at dorsum and $\frac{1}{2}$ mm. on H. Smaller.
- Sub-sp. *elsiei* Evans 1925: ♂ Tavoy; type B.M. 10 ♂, 1 ♀ Tavoy. 18 ♂, 18 ♀ Mergui. 7 ♂, 1 ♀ Victoria Point. 3 ♂, 1 ♀ Peninsular Siam.
 (b) Intermediate. ♂ as *epimuta*. ♀ blue rather than purple.
- Sub-sp. *epiala* Corbet 1941: ♂ Malaya; type B.M. 17 ♂, 19 ♀ Malaya. 19 ♂, 13 ♀ Sumatra. 5 ♂, 1 ♀ "Java".
 (c) ♂ uniform shining blue, border a thread. ♀ purple with broad borders.
- Sub-sp. *epimuta* Moore 1857: ♂ Borneo; type B.M. 19 ♂, 13 ♀ Borneo.
- 2 (1). Unf discal spot in space 4 more or less in line with those in spaces 3, 2. ♂ upf no area of modified scales.
- hypomuta*. Two sub-species. Fig. Corbet 23 and 19 g.
 (a) ♂ F 14 to 20 mm., shining dark purple-blue, border a thread. ♀ shining deep blue, border $2\frac{1}{2}$ mm.
- Sub-sp. *hypomuta* Hewitson 1862: ♂ ? loc.; type B.M. 2 ♂, 1 ♀ Langkawi Is. 4 ♂, 2 ♀ Malaya. 1 ♂, 2 ♀ Sumatra.
 (b) ♀ F border 4 mm.
- Sub-sp. *deva* Bethune-Baker 1896: ♂ Borneo; type B.M. 3 ♂, 9 ♀ Banka. 21 ♂, 27 ♀ Borneo.
 Synonym *shelfordi* Moulton 1911: ♀ Borneo; type B.M.

3a (1d). Unf discal spot in space 4 in line with those in spaces 5, 6.

3b (5a). Unf discal band conspicuously angled mid-space 4 and continuous from spot in space 6 to spot in space 3.

3 (4). Unf discal spots in spaces 2, 3 in line.

metamuta. Two sub-species. Fig. Corbet 22 and 22 g.

(a) ♂ F 18 mm., upf dark purple-blue, uph shining light blue, very strongly contrasting, border 1½ mm. ♀ blue, border 3 mm.

Sub-sp. **metamuta** Hewitson 1862: ♂ Sumatra; type B.M. 5 ♂, 4 ♀ Malaya. 16 ♂, 6 ♀ Sumatra.

Synonym *gunongensis* Bethune-Baker 1897: ♂ Perak; type B.M.

(b) Uph darker shining blue in ♂ and upf border ¾ mm.

Sub-sp. **hilda** nov.: ♂ Borneo; type B.M. 4 ♂, 1 ♀ Borneo.

4 (3). Unf discal spot in space 2 out of line, nearer termen.

muta. Nine sub-species. Fig. Corbet 24 g. At either end of its range *muta* is constant, but from Malaya to Borneo there appear to be several forms flying together. They were regarded as species by Corbet (1941), but are now believed to be sub-species.

(a) ♂ 18 to 20 mm., shining metallic blue, completely overlaid violet on F, border 1½ mm. ♀ pale blue to violet, border 7 mm. at apex to 2 mm. at dorsum. (The *metamuta* of Evans 1932.)

Sub-sp. **merguiana** Corbet 1941: ♂ Mergui; type B.M. 4 ♂, 4 ♀ Karens. 14 ♂, 14 ♀ Ataran. 8 ♂, 1 ♀ Tavoy. 7 ♂, 11 ♀ Mergui. 2 ♂, 2 ♀ Victoria Point. 1 ♀ Siam. 2 ♂, 1 ♀ Peninsular Siam.

(b) ♂ F 19 mm. uph shining blue contrasting with the violet upf, but not so greatly as in *merguiana*. Fig. Corbet 25 g.

Sub-sp. **maranda** Corbet 1941: ♂ Malaya; type B.M. 12 ♂, 13 ♀ Malaya.

(c) ♂ F 13 to 18 mm., plain shining blue, border 1½ mm. ♀ darker and smaller than *maranda*. Fig. Corbet 25 g.

Sub-sp. **tropaea** Corbet 1941: ♂ Johore; type B.M. 15 ♂, 8 ♀ Malaya.

Synonyms *busa* Corbet 1941: ♂ Malaya; type B.M. Fig. Corbet 25 g.

santava Corbet 1941: ♂ Singapore; type B.M.

(d) Grades from *merguiana* to *waterstradti*.

Sub-sp. **trima** Corbet 1941: ♂ Sumatra; type B.M. 27 ♂, 27 ♀ Sumatra.

(e) Smaller, ♂ F 17 mm., uniform blue, borders broad, 1½ to 2 mm. ♀ border up to 5 mm. Fig. Corbet 25 and 26 g.

Sub-sp. **wallacei** Corbet 1941: ♂ Sumatra; type B.M. 6 ♂, 18 ♀ Sumatra. 8 ♂, 1 ♀ Banka.

(f) Almost exactly as *merguiana* ♂, smaller, ♂ F 18 mm., border 1½ mm. Below, very much darker ochreous-brown.

Sub-sp. **gloria** nov.: ♂ Nias; type B.M. 7 ♂, 6 ♀ Nias.

(g) Large, ♂ F 20 mm., bright shining purple-blue, border 2 mm., F and H. ♀ shining blue, border 6 mm. at apex to 3 mm. H.

Sub-sp. **waterstradti** Bethune-Baker 1896: ♂ Kina Balu. 23 ♂, 24 ♀ Kina Balu, Borneo.

(h) Smaller and duller, border generally broader on H. ♀ purple rather than blue, borders 4 mm. F and H.

Sub-sp. **moorei** Bethune-Baker 1896: ♂ Labuan; type B.M. 1 ♂, 1 ♀ Labuan. 10 ♂, 7 ♀ Pulo Laut. 20 ♂, 2 ♀ Borneo.

Synonym *daganda* Corbet 1941: ♂ Borneo; type B.M.

(i) ♂ F 20 mm., very pale shining blue, violet tinge on F, border ¾ mm. ♀ very pale blue, border 3 mm. at apex to 1 mm. at dorsum.

Sub-sp. **muta** Hewitson 1862: ♂ Java. 21 ♂, 21 ♀ Java.

5a (3b). Unf discal band not angled mid space 4, but more or less broken at vein 4.

5b (9a). Unf markings well defined. ♂ F 17 to 20 mm.

- 5c (7a). Unh spots mid-cell and mid-space 1c enlarged and approximate.
 5 (6). Unf discal spot in space 3 elongate, out of line and longer than the rest. ♂ F 20 mm., very dark blue, border a thread. Fig. Corbet 24 and 27 g.
kurzi Distant 1885: ♂ Malacca. 14 ♂, 7 ♀ Malaya.
- 6 (5). Unf discal spot in space 3 as rest of band, which is broader than usual. ♂ F 19 mm., dark purple-blue, border $\frac{1}{2}$ mm. Below, dull brown, markings rather darker than ground.
sceva Bethune-Baker 1903: ♂ Sumatra. 2 ♂ Sumatra.
- 7a (5c). Unh spots mid-cell and mid-space 1c small, rounded and wide apart.
 7 (8). Unf in space 1b an outwardly white-edged dark spot under the central cell spot and a tiny brown dot between the discal and the basal spots in space 2. ♂ F 20 mm., purple-blue, border 1 mm. F produced and below, plain brown as in *kurzi*. ♀ purple, borders 6 mm.
indra nov.: ♂ Borneo; type B.M. 6 ♂, 2 ♀ Borneo.
- 8 (7). Unf no such markings in space 1b. ♂ F 20 mm. Like *baluensis* but wings more produced and termen straighter. Below markings broad, as in *kurzi* and *sceva*.
siabra Corbet 1941: ♂ Pulo Laut; type B.M. 2 ♂ Pulo Laut.
- 9a (5b). Unh markings faint, ill defined. Small.
 9 (10). Above, very dark purple-blue, border a thread. ♂ F 17 mm. ♀ purple, border 4 to 3 mm.
alica nov.: ♂ Borneo: type B.M. 3 ♂, 1 ♀ Borneo.
- 10 (9). Above, bright shining purple-blue, border $1\frac{1}{2}$ mm. ♂ F 16 mm. ♀ bluer, border 4 mm. at apex F to 2 mm. at dorsum.
avathina. Two sub-species. Fig. Corbet 23 g.
 (a) Above, bluer.
 Sub-sp. *avathina* Corbet 1941: ♂ Malaya; type B.M. 4 ♂, 4 ♀ Malaya.
 (b) Above, more purple.
 Sub-sp. *neon* Corbet 1941: ♂ Sumatra; type B.M. 2 ♂, 2 ♀ Sumatra. 1 ♂ Borneo. 3 ♂, 1 ♀ Pulo Laut.
 Synonym *xenon* Corbet 1941: ♂ Pulo Laut; type B.M.
- 11a (1c). Unh discal band incompletely dislocated at vein 2, more or less overlapping.

Amphimuta Sub-group

- 11b (18a). Unh discal band irregular, due to spot in space 3 being out of line.
 11c (16a). ♂ uph space 6 not entirely blue.
 11d (14a). ♂ clasp undivided.
 11 (12a). ♂ clasp hourglass-shape. ♂ F 20 mm., varying from blue to very dark purple-blue, border broad, 2 to $1\frac{1}{2}$ mm.
- agesilaus*. Three sub-species. Fig. Corbet 69 and 31 g as *gesa*.
 (a) ♂ above much brighter blue. ♀ also bluer.
 Sub-sp. *gesa* Corbet 1938: ♂ Langkawi Is.; type B.M. 5 ♂, 4 ♀ Mergui. 1 ♂ Peninsular Siam. 1 ♂, 1 ♀ Langkawi Is. 1 ♂, 3 ♀ Malaya. 1 ♂, 2 ♀ Sumatra. 3 ♂, 1 ♀ Banka.
 (b) ♂ dark blue. ♀ purple with very broad borders.
 Sub-sp. *agesilaus* Staudinger 1889: ♂ Palawan. 6 ♂, 2 ♀ Borneo. 6 ♂, 1 ♀ Palawan.
 (c) ♂ F 18 mm., very dark blue, border 2 mm. F, 4 mm. H. ♀ border 4 mm. F and H all brown except some blue scaling in the cell.
 Sub-sp. *philippa nov.*: ♂ Mindanao; type B.M. 15 ♂, 11 ♀ Mindanao. 1 ♂, 1 ♀ Mindoro.

12a (11). ♂ clasp not hourglass-shape.

12 (13). ♂ F 18 to 19 mm., wings more rounded. ♂ dark blue border $\frac{1}{2}$ mm. ♀ shining purple-blue, border 3 mm. at apex to 1 or 2 mm. at dorsum and on H. Below markings smaller and more macular. End of clasp rounded.

baluensis Bethune-Baker 1904: ♂ Kina Balu; type B.M. Fig. Corbet 30 and 34 g. 27 ♂, 8 ♀ Borneo. 1 ♂ Pulo Laut.

13 (12). ♂ F 21 mm., termen straight. ♂ lighter blue, borders broad. End of clasp tapered.

major Two sub-species. Fig. Corbet 28 and 32 g.

(a) ♂ F 21 mm., bright shining blue, border 3 mm. at apex to 2 mm. at dorsum and on H. ♀ blue. Looks very different from *major* and *agesilaus gesa*.

Sub-sp. *norda nov.*: ♂ Langkawi Is.; type B.M. 2 ♂, 3 ♀ Langkawi Is.

(b) Rather darker and with broader borders.

Sub-sp. *major* Staudinger 1889: ♂ Malacca. 4 ♂, 4 ♀ Malaya. 16 ♂, 16 ♀ Sumatra. 26 ♂, 37 ♀ Borneo.

14a (11d). Clasp divided.

14 (15). ♂ rather bright purple-blue, border broad. Like *major* and *agesilaus*, difficult to separate without examining the genitalia clasp.

catori. Two sub-species.

(a) ♂ F 21 mm., border 1 mm.

Sub-sp. *milleriana* Corbet 1941: ♂ Langkawi Is.; type B.M. 4 ♂, 1 ♀ Mergui. 1 ♂ Victoria Point. 1 ♂ Siam. 2 ♂, 1 ♀ Peninsular Siam. 1 ♂ Langkawi Is. 1 ♂ Penang. 1 ♂ Nias.

(b) ♂ F border broader, 2 to 5 mm. Very variable unh, where the costal markings are often absent.

Sub-sp. *catori* Bethune-Baker 1903: ♂ Borneo; type B.M. Genitalia of type checked: Bethune-Baker's genitalia fig. is from a specimen of *major*. 1 ♂ Peninsular Siam. 11 ♂, 1 ♀ Malaya. 9 ♂, 7 ♀ Sumatra. 42 ♂, 7 ♀ Borneo. 4 ♂ Pulo Laut. 1 ♂ Biliton. 3 ♂ Labuan. 1 ♂ Palawan. 3 ♂ "Java".

15 (14). ♂ very dark blue, border narrow, $\frac{1}{2}$ mm. ♀ bright violet-blue with broad borders.

amphimuta. Two sub-species. Fig. Corbet 29 and 33 g.

(a) ♂ 21 mm.: upf no modified scales.

Sub-sp. *amphimuta* Felder 1860: ♂ Malaya; type B.M. 13 ♂, 2 ♀ Malaya. 8 ♂, 1 ♀ Sumatra. 1 ♂ Banka. 9 ♂, 1 ♀ Borneo. 1 ♂ "Philippines".

Synonym *asia* De Nicéville 1893: ♂ Malaya. Fig. Corbet 31 and 35 g.

(b) Genitalia and general appearance do not differ, but upf with a central area of modified scales as in *epimuta*. Unf discal band unbroken. Unh with a strong purple gloss.

Sub-sp. *quadra nov.*: ♂ Java; type B.M. Unique.

16a (11c). ♂ uph space 6 all blue: ♂ F 20 mm., border a thread.

16 (17). Below markings faint.

moolaiana. Four sub-species. Fig. Corbet 27 and 30 g.

(a) ♂ above, brilliant shining pale blue, turning to violet on apical half F. ♀ pale blue, border 7 mm. at apex to 3 mm. at dorsum, $1\frac{1}{2}$ mm. on H.

Sub-sp. *moolaiana* Moore 1878: ♂ Tenasserim; type B.M. 13 ♂, 9 ♀ Karens. 20 ♂, 20 ♀ Ataran. 18 ♂, 18 ♀ Tavoy.

Synonyms *pastorella* Doherty 1889: ♂ Tavoy; type B.M.

pagaiensis Ollenbach 1921: ♂ Tavoy; type B.M.

(b) ♂ uniform shining blue. ♀ darker, borders narrower and traces of a dark spot beyond end cell upf.

Sub-sp. *maya* Evans 1932: ♂ Mergui; type B.M. 14 ♂, 15 ♀ Mergui. 3 ♂, 4 ♀ Victoria Point. 2 ♂, 2 ♀ Peninsular Siam. 1 ♂ "Java".

(c) ♂ uniform purple-blue. ♀ purple-blue.

Sub-sp. *yajuna* Corbet 1941: ♂ Malaya; type B.M. 9 ♂, 5 ♀ Malaya. 9 ♂ Sumatra. 11 ♂, 2 ♀ Borneo.

(d) ♂ F 18 mm., as *maya*. ♀ pale blue with very broad border, 9 mm. at apex to 4 mm. at dorsum F and on H.

Sub-sp. *klossi* Corbet 1941: ♂ Sipora; type B.M. 1 ♂ Sipora. 1 ♀ Siberut. 1 ♀ N. Pagi Is.

17 (16). Below, markings conspicuous. ♂ ♀ above, as *moolaiana*.

hesba Hewitson 1869: ♂ Mindanao. 10 ♂, 1 ♀ Mindanao.

18a (11b). Unh discal band regular from space 2 to space 7, spot in space 3 in line.

18 (19a). Below, markings very faint. ♂ F 17 mm., purple-blue, border 1 mm.

zylde. Two sub-species. Fig. Corbet 33 and 29 g.

(a) Small, ♂ 16 mm., bright shining blue, ♀ paler blue, border 5 mm. at apex to 2 mm. at dorsum F. Fig. Corbet 34.

Sub-sp. *elioti* Corbet 1941: ♂ Malaya; type B.M. 1 ♂, 2 ♀ Malaya.

(b) ♂ darker blue. ♀ unknown.

Sub-sp. *zylde* Corbet 1941: ♂ Sumatra; type B.M. 5 ♂ Sumatra.

19a (18). Below, markings conspicuous. ♂ above, very dark blue, border $\frac{1}{2}$ mm.

19 (20). Unf discal band broken. ♂ F 21 to 25 mm. ♀ purple, border 3 mm. Fig. Corbet 32 and 36 g.

dajagaka Bethune-Baker 1896: ♂ Borneo; type B.M. 33 ♂, 7 ♀ Borneo.

20 (19). Unf discal band unbroken. ♂ 23 mm. Fig. Corbet 38 g.

anamuta Semper 1890: ♂ Mindanao. 3 ♂ Mindanao. 1 ♂ Mindoro.

21a (1b). Unf lower part of end-cell spot enlarged.

Belphoebe Sub-group

21 (22). Unh no white spot mid space 7. ♂ F 18 mm., rather pale violet blue, border 5 mm. at apex to 2 mm. at dorsum and on H. Below markings conspicuous. Fig. Corbet 35 and 37 g.

belphoebe Doherty 1889: ♂ Tavoy; type B.M. 1 ♂ Assam. 1 ♂ Tavoy. 1 ♂ Malaya.

Synonym *cowani* Corbet 1941: ♂ Malaya; type B.M. Fig. Corbet 92.

22 (21). Unh with a conspicuous white spot mid space 7. ♂ F 15 mm., shining blue, border 4 mm. at apex to 1 $\frac{1}{2}$ mm. at dorsum and on H. Below, purple washed; markings white edged. Fig. Corbet 36 and 41 g.

myrzalina Corbet 1941: ♂ Malaya; type B.M. 1 ♂ Malaya.

23a (1a). Unf with spots between cell and costa. ♂ F 22 mm.

Agesias Sub-group

23b (25). Unf with a discal band.

23 (24). Unf spots in spaces 2, 3 elongate.

kinabala Druce 1895: ♂ Kina Balu. Fig. Bethune-Baker 1903 as "*argesias*"; Corbet 19 as *ovomaculata* and 40 g. as *agesias*. 1 ♀ Malaya. 11 ♂, 3 ♀ Sumatra. 26 ♂, 25 ♀ Borneo. 4 ♂ Pulo Laut.

Synonym *nabala* Corbet 1941: ♂ Kina Balu; type B.M.

24 (23). Unf spots in spaces 2, 3, rounded.

agesias Hewitson 1862: ♂ Borneo; type B.M. 1 ♀ Malaya. 12 ♂, 5 ♀ Sumatra. 19 ♂, 11 ♀ Borneo. 2 ♂ Pulo Laut. 1 ♀ "Philippines".

Synonym *ovomaculata* Hewitson 1878: ♂ Sumatra; type B.M.

25 (23b). Unf no discal band. Fig. Corbet 18 and 39 g.

similis Druce 1895: ♂ Borneo; type B.M. 2 ♂ Malaya. 16♂, 17 ♀ Sumatra. 1 ♂ Linga Archipelago. 3 ♂, 3 ♀ Borneo.

Synonym *anila* De Nicéville 1896: ♂ Perak.

C. ABSEUS GROUP OF NARATHURA

1 (2a). Unf no spot in space 12; spot in space 4 completely detached from rest of band. ♀ F 26 mm., purple-blue with broad dark borders. ♂ unknown. Fig. Corbet 42.

anella De Nicéville 1895: ♀ Perak. 2 ♀ Malaya. 2 ♀ Sumatra. 1 ♀ Borneo.

2a (1). Unf costal spot in space 12 as well as 2 spots each in spaces 7, 10, 11. Unh white streak on costa over spot mid space 7.

2 (3). Unf discal spot in space 3 far from end-cell spot. ♂ F 18 mm. Fig. Corbet 83 and 105 g.

abseus. Five sub-species.

(a) ♂ shining violet-blue, border 5 mm. at apex to 2 mm. at dorsum; ♀ pale shining blue. Sub-sp. *mackwoodi* Riley 1923: ♂ Ceylon; type B.M. 8 ♂, 7 ♀ Ceylon.

(b) ♂ dull purple, border 7 mm. at apex to 4 mm. at dorsum and 5 mm. on H. ♀ blue, borders narrower.

Sub-sp. *indicus* Riley 1923: ♂ Sikkim; type B.M. 1 ♂ Coorg and 1 ♀ N. Kanara (S. India). 19 ♂, 17 ♀ Sikkim. 9 ♂, 5 ♀ Assam. 34 ♂, 13 ♀ N. Burma to Mergui. 4 ♂, 1 ♀ Siam. 1 ♂, 1 ♀ Cochin China.

(c) ♂ brilliant deep purple-blue, border 4 mm. at apex to 2 mm. at dorsum and on H. ♀ pale metallic violet-blue. Flies with *indicus*: underside and genitalia identical.

Sub-sp. *ophiala* Corbet 1941: ♂ Karens; type B.M. 6 ♂, 2 ♀ Karens. 5 ♂, 9 ♀ Ataran. 5 ♂, 4 ♀ Tavoy. 3 ♂, 4 ♀ Mergui. 2 ♂, 1 ♀ Victoria Point. 2 ♂ Siam.

(d) ♂ dark shining blue, border as *ophiala*; ♀ pale purple.

Sub-sp. *abseus* Hewitson 1862: ♀ Singapore; type B.M. 12 ♂, 4 ♀ Malaya. 1 ♂, 1 ♀ Sumatra. 15 ♂, 4 ♀ Borneo. 4 ♂, 2 ♀ Palawan.

Synonym *nava* Fruhstorfer 1914: ♂ Borneo; type B.M.

(e) Only differs from *abseus* in ♀ being bluer.

Sub-sp. *amphea* Felder 1865: ♂ Luzon; type B.M. 6 ♂, 4 ♀ Luzon. 15 ♂, 9 ♀ Mindanao. 10 ♂ Mindoro.

(f) ♂ upf border 1 mm., much narrower than in any form.

Sub-sp. *oghatina* Fruhstorfer 1914: ♂ Bazilan; type B.M. 2 ♂ Bazilan.

3 (2). Unf discal spot in space 3 produced towards the end-cell spot. ♂ F 21 mm. Below, markings larger, more irregular and more sharply defined.

irregularis Bethune-Baker 1903: ♀ Bangkei; type B.M. 14 ♂, 9 ♀ Celebes. 3 ♂, 4 ♀ Bangkei.

D. THEBA GROUP OF NARATHURA

1 (2a). Unf no markings above cell. Below markings more or less rounded, resembling *acetes*. ♂ F 24 mm.; pale shining blue, apex broadly (11 mm.) dark purple, border 1 mm. ♀ pale blue, dark border 6 mm. Fig. Seitz Pl. 150b.

theba Hewitson 1862: ♂ Mindanao; type B.M. 6 ♂, 1 ♀ Mindanao.

2a (1). Unf long white basal streaks at base costa and base vein 12, followed by 2 white spots in spaces 7, 10, 11. Below, dark brown with conspicuous white stripes, no rounded markings except at base F and H.

2 (3, 4). ♂ F 19 mm., rather pale violet blue with $\frac{1}{2}$ mm. dark border. ♀ bluish-white with dark border F 2 mm. along costa and 4 mm. along termen; suffused bar end cell and a dark spot beyond. Fig. Seitz Pl. 150b.

aronya. Hewitson 1869: ♀ Mindanao. 1 ♂ Mindanao.

- 3 (2, 4). ♂ F 23 mm., shining pearly white, with a broad dark, angled apex 5 mm., tapering to 1 mm. at dorsum; between end cell and apex a narrow purple blue area. Fig. Seitz 150 Bc.

argentea Staudinger 1888: ♂ Celebes. 1 ♂ Celebes.

Synonym *clarissa* Grose-Smith 1897: ♂ Celebes.

- 4 (2, 3). ♂ F 21 mm., very pale pearly blue, with a broad dark triangular apex, inwardly purple, outwardly brown.

sangira Bethune-Baker 1897: ♂ Sangir; type B.M. 1 ♂ Sangir. Fig. Seitz 148b.

E HERCULES GROUP OF NARATHURA

- 1 (2). H cell much $< \frac{1}{2}$ wing. ♂ above shining blue, border a thread: H all space 6 blue. Fig. Seitz 149 g.

hercules. Ten sub-species, some of which fly together.

(a) ♂ 35 mm. ♀ dull blue, borders 10 mm.; below green.

Sub-sp. *hercules* Hewitson 1862: ♂ Macassar. 12 ♂, 12 ♀ Celebes.

(b) ♂ 30 to 33 mm. ♀ brighter purple-blue, border 3 to 5 mm.; below green.

Sub-sp. *stymphelus* Fruhstorfer 1914: ♂♀ Batchian: type B.M. 19 ♂, 7 ♀ Halmaheira. 22 ♂ Batchian. 2 ♂ Obi. 1 ♂ Misol.

(c) ♂ 29 to 31 mm. ♀ purple-blue, borders 1 to 3 mm. Below, varies from green to white, or pinkish-grey. ♂ brighter blue.

Sub-sp. *leo* Druce 1894: ♂♀ Humboldt Bay; type B.M. 11 ♂, 1 ♀ Waigou. 30 ♂, 8 ♀ West New Guinea.

Synonyms *telephus* Toxopeus 1930: ♂ SW. New Guinea.

leonidas Toxopeus 1930: ♂ Salawatti.

(d) As *leo*. Below, typically pale greenish-white with narrow markings: sometimes brownish, sometimes white with the markings reduced or obsolete.

Sub-sp. *droa* nov.: ♂ Aroa River; type B.M. 22 ♂, 20 ♀ E. New Guinea. 1 ♂, 1 ♀ Sariba Is. 1 ♂ Fergusson Is.

(e) Small ♂ F 26 mm.: as *droa*, but below more usually pale green with narrow markings.

Sub-sp. *louisa* nov.: ♂ Sudest Is.; type B.M. 15 ♂, 4 ♀ Sudest Is. 8 ♂ Rossell Is. 5 ♂, 3 ♀ St. Aignan Is.

(f) ♀ brown above, outer half yellowish. ♂ brighter blue than *leo*. Below, pale greenish to pinkish-grey or white: markings liable to much distortion.

Sub-sp. *herculina* Staudinger 1888: ♂ Waigou. 4 ♂, 2 ♀ Halmaheira. 35 ♂, 21 ♀ Waigou.

(g) Intermediate between *herculina* and *phalaerus*.

Sub-sp. *leontodamas* Toxopeus 1930: ♂ Misol. 5 ♂ Gebi. 15 ♂, 2 ♀ Misol.

(h) ♀ above plain dark brown. Below dark to pale green.

Sub-sp. *phalaerus*. Fruhstorfer 1914: ♂♀ Jobi; type B.M. 10 ♂, 8 ♀ Jobi Is. 14 ♂, 14 ♀ Mioswar Is. 5 ♂, 3 ♀ W. New Guinea.

(i) ♀ above and below dark brown.

Sub-sp. *tyrannus* Felder 1865: ♂ Halmaheira; type B.M. 25 ♂, 4 ♀ Halmaheira. 2 ♂ Batchian. 1 ♂ "Buru". 1 ♂ "Aroa R."

Synonyms *gilolensis* Felder 1865: ♂ Gilolo; type B.M.

afраниus Fruhstorfer 1914: ♂ Aroa River; type B.M.

(j) ♀ above, brown: below pale brown.

Sub-sp. *sophilus* Fruhstorfer 1914: ♂♀ Obi; type B.M. 20 ♂, 4 ♀ Obi. 3 ♂ Tenimber. 4 ♂, 4 ♀ W. New Guinea.

Synonym *obscurata* Ribbe 1926: ♂ W. New Guinea.

- 2 (1). H cell = $\frac{1}{2}$ wing. ♂ F 23 mm., dark violet-blue, 1 mm. border. Uph space 6 half brown. ♀ bright shining blue, border 5 mm. Below brown. Fig. Seitz 150 b.

ate Hewitson 1863: ♂ Amboina; type B.M. 2 ♂ Amboina. 1 ♂, 1 ♀ Ceram.

F. DEMOCRITUS GROUP OF NARATHURA

1a (7a). H ternal lobe conspicuously projecting.

Cleander Sub-group

1 (2a). Unf with spot in space 11. ♂ 23 mm. Fig. Seitz 148c.

quercoides Röber 1886: ♂ Celebes. 32 ♂, 31 ♀ Celebes.

2a (1). Unf no spot in space 11: generally a spot in space 10.

2 (3a). Unf discal band unbroken, continuous.

cleander. Nine sub-species. Fig. Corbet 45 and 49 g as *aphadantas*.

(a) Below pale brown with faint purple wash, markings much darker than ground. ♂ F 23 mm., dark shining blue, border 2 mm.

Sub-sp. *regia* Evans 1925: ♂ Mergui; type B.M. 5 ♂, 2 ♀ Tavoy. 9 ♂, 7 ♀ Mergui. 3 ♂, 4 ♀ Victoria Point, S. Burma.

(b) Below plain brown, markings inconspicuous.

Sub-sp. *aphadantas* Corbet 1941: ♂ Malaya; type B.M. 2 ♂, 1 ♀ Malaya.

(c) ♂ above, purple-blue, border $\frac{1}{2}$ mm. Below, as (b).

Sub-sp. *incerta* Moulton 1911: ♂ Borneo; type B.M. 1 ♂, 1 ♀ Sumatra. 11 ♂, 9 ♀ Borneo.

(d) As *incerta*, but below, conspicuously purple washed.

Sub-sp. *apharida* Corbet 1941: ♂ Lombok; type B.M. 2 ♂ Java. 1 ♂ Lombok. Fig. in *Rhop. Java* as *apha*.

(e) ♂ 25 mm., dark blue, border $1\frac{1}{2}$ mm. ♀ with very reduced purple areas, above, only on half F and at base H.

Sub-sp. *sostrata* Fruhstorfer 1914: ♂ Celebes; type B.M. 3 ♂, 2 ♀ Celebes. 1 ♂, 1 ♀ Bangkei. 1 ♀ Saleyer.

(f) Small, ♂ F 20 mm., very dark blue, border $\frac{1}{2}$ mm. ♀ dark, as *sostrata*.

Sub-sp. *minor* nov.: ♂ Batchian; type B.M. 2 ♂, 2 ♀ Batchian.

(g) ♂ F 24 mm., dark blue, border 1 mm. ♀ brighter blue with broad borders. Below, ochreous brown, like *sostrata*.

Sub-sp. *cleander* Felder 1860: ♂ Amboina; type B.M. 10 ♂, 5 ♀ Amboina. 2 ♂, 2 ♀ Buru. 1 ♂, 2 ♀ Ceram.

Synonym *adatha* Hewitson 1862: ♂ Amboina.

(h) ♂ F 22 mm., dark blue, border $\frac{1}{2}$ mm. ♀ brighter blue, border 4 mm. Below, purple. Unh markings faint, discal spot in space 6 nearer to spot in space 5 than to end-cell spot; dense whitish scaling between ternal markings and the discal band.

Sub-sp. *aruana* nov.: ♂ Aru; type B.M. 2 ♂, 1 ♀ Aru.

(i) Above, as *aruana* but uph space 7 entirely blue, not half brown as in all other *cleander* forms. Below with purple gloss and conspicuous markings like *aruana*.

Sub-sp. *jobina* nov.: ♂ Jobi Is.; type B.M. 2 ♂ Jobi. 1 ♂, 1 ♀ Schouten Is. 1 ♀ Central New Guinea. 1 ♀ British New Guinea. 1 ♀ Mefor Is. 1 ♀ "New Georgia".

3a (2). Unf discal band broken or sinuous at vein 4.

3 (4a). Unf spot in space 6 very much larger than the spot in space 5. Below, rather pale brown with faint purple gloss and conspicuous markings, irregular and white-edged. ♂ F 23 mm., dark shining blue, border $\frac{3}{4}$ mm.

nicevillei Bethune-Baker 1903: ♂ NE. Bengal; type B.M. 1 ♀ Bhutan, 2 ♂ Jalpaiguri. 2 ♂ E. Manipur. 1 ♀ Bhamo, N. Burma.

4a (3). Unf spots in spaces of 6 and 5 of same size.

4 (5a). Unh discal spot in space 6 with its outer edge in line with the inner edge of the spot in space 5.

athada. Three sub-species.

(a) Below, with a conspicuous purple wash. ♂ F 23 mm., dark blue, border $1\frac{1}{2}$ mm. ♀ brighter blue, border 3 mm.

- Sub-sp. *apha* De Nicéville 1895: ♂ Martaban, Burma. 1 ♀ Assam. 4 ♂ N. Shan States. 1 ♂ Ataran. 5 ♂ Tavoy. 8 ♂, 1 ♀ Mergui. 4 ♂, 1 ♀ Victoria Point, S. Burma.
 (b) ♂ upf border $\frac{3}{4}$ mm. Below, no purple wash.
- Sub-sp. *athada* Staudinger 1889: ♀ Malaya: fig. by Distant as *adatha*; type B.M. 7 ♂, 3 ♀ Malaya. 3 ♂ Sumatra. 1 ♂ Banka. 1 ♂, 1 ♀ Borneo. 4 ♂, 6 ♀ Bawean.
 Synonym *agamemnon* Corbet 1941: ♂ Singapore; type B.M.
 (c) ♂ F 22 mm. Below very much darker brown than *athada*, with a faint purple gloss.
 ♂ upf dark border $\frac{3}{4}$ mm.
- Sub-sp. *wilemani* nov.: ♂ Mindanao; type B.M. 5 ♂ Mindanao.
- 5a (4). Unh discal spot in space 6 not reaching the inner edge of the spot in space 5.
 5 (6). Unh discal spot in space 6 outwardly concave or straight. Fig. Corbet 43 (as *adorea*) and 47 g.
- silhetensis*. Four sub-species.
 (a) ♂ F 25 mm., bright shining blue, border 1 mm. ♀ lighter blue, border 4 mm. Below somewhat ochreous brown, no purple wash.
- Sub-sp. *silhetensis* Hewitson 1862: ♂ Sylhet; type B.M. 1 ♂ Sikkim. 1 ♀ Cachar. 2 ♂ Sylhet. 16 ♂, 8 ♀ Manipur and Naga Hills. 1 ♂ Bhamo. 4 ♂, 6 ♀ N. Shan States. 2 ♂, 2 ♀ Karens. 8 ♂, 8 ♀ Ataran. 4 ♂, 2 ♀ Tavoy. 5 ♂, 3 ♀ Mergui. 2 ♂ Victoria Point. 1 ♀ Siam. 1 ♀ Cochin China. 1 ♂, 1 ♀ Peninsular Siam.
 Synonym *arama* De Nicéville 1895: ♂ Sikkim.
 (b) Below, browner. ♂ upf border $\frac{1}{2}$ mm.
- Sub-sp. *adorea* De Nicéville 1890: ♂ Singapore; type B.M. 3 ♂, 2 ♀ Malaya. 3 ♂ Sumatra. 10 ♂, 6 ♀ Borneo.
 Synonym *drucei* Bethune-Baker 1896: ♂ Borneo.
 (c) ♂ F 22 mm., border $\frac{3}{4}$ mm. Below, markings wide apart as in *silhetensis*, not close together as in *adorea*.
- Sub-sp. *fundania* Fruhstorfer 1914: ♂ Java; type B.M. 14 ♂, 12 ♀ Java. Fig. *Rhop Java* as *vihara*.
 (d) Like *fundania*, with narrow markings. Larger ♂ F 25 mm., border very narrow, $\frac{1}{2}$ mm.
- Sub-sp. *malayica* Bethune-Baker 1903: ♂ Philippines; type B.M. 4 ♂ Mindanao. 7 ♂ Mindoro.
- 6 (5). Unh discal spot in space 6 outwardly convex, set obliquely against end-cell spot and directed to apex H.
- zambra*. Two sub-species. Fig. Corbet 44 and 48 g.
 (a) ♂ F 22 mm., border $\frac{1}{2}$ mm. Below somewhat ochreous brown, markings well defined.
- Sub-sp. *zambra* Swinhoe 1910: ♂ Ataran; type B.M. 9 ♂, 3 ♀ Karens. 11 ♂, 7 ♀ Ataran. 2 ♂ Tavoy. 16 ♂, 11 ♀ Mergui. 4 ♂, 3 ♀ Victoria Point. 2 ♂ Siam. 8 ♂, 4 ♀ Malaya. 7 ♂, 6 ♀ Sumatra. 1 ♂ Nias. 11 ♂, 3 ♀ Borneo. 1 ♀ Bawean. 1 ♂ Banka. 4 ♂, 7 ♀ Java.
 Synonyms *antura* Swinhoe 1910: ♂ Ataran; type B.M.
georgias Piepers & Snellen 1918: ♂ Java: figured as *adorea*.
vandenberghi Corbet 1941: ♂ Java, citing *Toxopeus* as author.
 (b) Larger, ♂ F 24 mm. Below, much darker.
- Sub-sp. *plateni* nov.: ♂ Mindanao; type B.M. 2 ♂, 2 ♀ Mindanao.
- 7a (1a). H ternal lobe not conspicuously projecting.
 7b (20a). Unf discal spot in space 4 not or not much out of line with those in spaces 5 and 6; unf. no spot mid space 11.

Atrax Sub-group

- 7c (16a). Unh discal spot in space 6 about equal to the gap between the end-cell spot and the spot in space 5.

7d (9a). Unh central cell spot elongate, across cell.

7 (8). Unf discal band broken at vein 4.

ace. Two sub-species. Fig. Corbet 46 and 50 g.

(a) Small ♂ F 20 mm., border broader $\frac{3}{4}$ mm.

Sub-sp. *arata* Tytler 1915: ♂ Manipur; type B.M. 4 ♂ Manipur. 1 ♂ Ruby Mines, N. Burma. 2 ♂ Ataran.

(b) ♂ F 22 mm., dark blue, border a thread. ♀ purple with broad borders.

Sub-sp. *ace* De Nicéville 1892: ♂ Perak. 2 ♂, 1 ♀ Sumatra. 3 ♂, 2 ♀ Borneo.

8 (7). Unf discal band unbroken.

azinis. Two sub-species. Fig. Corbet 50.

(a) ♂ F 18 mm., dark blue, border $1\frac{1}{4}$ mm. F and 3 mm. H.

Sub-sp. *azinis* De Nicéville 1896: ♂ Sumatra; type B.M. 3 ♂, 1 ♀ Sumatra. 2 ♀ Java.

(b) ♂ F 20 mm., bluer, border $\frac{1}{2}$ mm. (see Appendix 3).

Sub-sp. *kounga* Bethune-Baker 1896: ♀ Kina Balu. 2 ♂, 2 ♀ Borneo.

9a (7d). Unh central cell spot circular.

9 (10a). Unf discal spot in space 9 absent or very faint.

agrata. Three sub-species. Fig. Corbet 47 and 51 g.

(a) Apex more pointed, termen straighter. ♂ above, paler and bluer: ♀ much bluer and more shining.

Sub-sp. *binghami* Corbet 1946: ♂ Yé Valley; type B.M. 6 ♂, 10 ♀ Manipur. 1 ♂, 1 ♀ N. Shan States. 1 ♀ Karens. 8 ♂, 9 ♀ Ataran. 1 ♂ Tavoy. 6 ♂ Mergui. 3 ♂, 3 ♀ Victoria Point. 2 ♂, 5 ♀ Peninsular Siam.

(b) ♂ F 19 mm., very dark blue, border $\frac{1}{2}$ mm. Below, markings not darker than ground, inconspicuous.

Sub-sp. *agrata* De Nicéville 1890: ♂ Singapore. 17 ♂, 6 ♀ Malaya. 11 ♂, 1 ♀ Sumatra. 1 ♂, 1 ♀ Nias. 2 ♂ Java.

(c) ♂ as *agrata*; ♀ purple instead of blue.

Sub-sp. *brookei* Bethune-Baker 1903: ♂ Pulo Laut; type B.M. 9 ♂, 4 ♀ Borneo. 1 ♂ "Hong Kong". 1 ♂ "New Guinea".

10a (9). Unf discal spot in space 9 conspicuous.

10 (11a). Below, glazed pale purple. ♂ F 20 mm., blue, border 1 mm. Wings more pointed.

aurelia Evans 1925: ♂ Manipur; type B.M. 25 ♂, 5 ♀ Manipur. 1 ♂ Upper Chindwin. 3 ♂, 1 ♀ Karens. 5 ♂, 7 ♀ Ataran. 1 ♂ Tavoy. 1 ♂ Victoria Point. 3 ♂ Siam.

11a (10). Below brown.

11 (12a). ♂ upf border broad, > 1 mm. Below, often washed pinkish-purple. Wings rounded.

selta. Two sub-species. Fig. Corbet as *alea* 53 and 59 g.

(a) ♂ F 17 mm., border $1\frac{1}{4}$ mm.

Sub-sp. *selta* Hewitson 1869: ♀ Moulmein; type B.M. 13 ♂, 6 ♀ Karens. 16 ♂, 4 ♀ Ataran. 36 ♂, 7 ♀ Tavoy. 17 ♂, 8 ♀ Mergui. 8 ♂, 3 ♀ Victoria Point. 1 ♂, 1 ♀ Peninsular Siam. 1 ♂ Malaya. 1 ♂ "Sumatra".

(b) ♂ F 20 mm., border 2 mm. Below, dark brown, markings darker than ground: no tornal metallic scaling.

Sub-sp. *constanceae* De Nicéville 1894: ♀ S. Andaman Is. 6 ♂, 1 ♀ S. Andaman Is.

12a (11). ♂ upf border narrow, < 1 mm.

12 (13a). ♂ above, clear blue, no admixture of purple, border $\frac{1}{2}$ mm.: uph space 6 mostly blue. Unf discal band generally sinuous, due to spot in space 3 being shifted inwards.

ralanda. Four sub-species. Fig. Corbet 48 and 53 g as *ridleyi*.

(a) Typical form (see Appendix 3, re *kounga*).

Sub-sp. *ralanda* Corbet 1941: ♂ Tavoy; type B.M. 1 ♂ "Assam". 29 ♂, 11 ♀ Karens. 27 ♂, 6 ♀ Ataran. 17 ♂, 6 ♀ Tavoy. 10 ♂, 3 ♀ Mergui. 1 ♀ Siam.

(b) ♂ upf border broader. ♀ duller, more purple, borders broader.

Sub-sp. *ridleyi* Corbet 1941: ♂ Malaya; type B.M. 1 ♂ Langkawi Is. 54 ♂, 1 ♀ Malaya. 5 ♂, 6 ♀ Sumatra. 1 ♀ Natuna. 6 ♂, 5 ♀ Borneo.

Synonym *milleri* Corbet 1941: ♂ Langkawi Is.; type B.M.

(c) ♂ above, faint, but perceptible, indigo hue.

Sub-sp. *karnyi* Corbet 1941: ♂ Mentawi Is.; type B.M. 3 ♂, 1 ♀ Mentawi Is.

(d) Below, with a purple wash, recalling *selta*.

Sub-sp. *molta* nov.: ♂ Java; type B.M. 4 ♂ Java.

13a (12). ♂ above, purple blue.

13 (14a). Unh discal spot in space 6 is an elongate oval over the end-cell spot and is remote from the discal spot in space 5. ♂ uph space 6 mostly or all blue.

aroa. Two sub-species. Fig. Corbet 49 and 55 g.

(a) Shining purple with narrow dark borders uniform: ♀ dark borders narrower.

Sub-sp. *esava* Corbet 1941: ♂ Mergui; type B.M. 3 ♂, 1 ♀ Ataran. 26 ♂, 17 ♀ Mergui. 4 ♂, 4 ♀ Victoria Point. 1 ♂ Peninsular Siam.

(b) Darker, ♂ F 21 mm., border $\frac{1}{2}$ mm.

Sub-sp. *aroa* Hewitson 1863: ♂ Sumatra; type B.M. 3 ♂, 2 ♀ Malaya. 10 ♂, 1 ♀ Sumatra. 12 ♂, 1 ♀ Borneo. 1 ♂ "Java". 4 ♂, 1 ♀ "Bazilan".

Synonyms *pryeri* Butler 1892: ♂ Borneo; type B.M.

arops Corbet 1941: ♂ Malaya; type B.M.

14a (13). Unh spot in space 6 more or less quadrate, between end-cell spot and spot in space 5.

14 (15). ♂ uph space 6 mostly blue.

sublustris. Two sub-species.

(a) ♂ F 19 mm., dark purple blue, border $\frac{1}{2}$ mm.

Sub-sp. *phanda* Corbet 1941: ♂ Malaya; type B.M. 18 ♂, 13 ♀ Malaya.

(b) ♂ darker.

Sub-sp. *sublustris* Bethune-Baker 1904: ♀ Kina Balu; type B.M. 4 ♂, 1 ♀ Sumatra. 4 ♂, 2 ♀ Borneo.

15 (14). ♂ uph space 6 mostly brown.

phaenops. Six sub-species. Fig. Corbet 51 and 56 g.

(a) Described as form of *azimis*, from a discolored specimen, marked as in *phaenops*. Fig. Corbet 57 g.

Sub-sp. *evansi* Corbet 1941: ♂ Malaya; type B.M. and 1 ♂ Renong.

(b) ♂ F 19 mm., dark purple-blue, border $1\frac{1}{4}$ mm. at apex to $\frac{1}{2}$ mm. at dorsum F. Below, ochreous-brown with darker markings.

Sub-sp. *sandakani* Bethune-Baker 1896: ♂ Borneo; type B.M. 1 ♂ Sumatra. 13 ♂, 2 ♀ Borneo.

(c) Smaller and with a broader dark border.

Sub-sp. *detrita* Staudinger 1889: ♂ Palawan. None in B.M.

(d) ♂ F 18 mm., border 2 mm. at apex to 1 mm. at dorsum F.

Sub-sp. *phaenops* Felder 1865: ♂ Luzon; type B.M. 4 ♂ Luzon. 7 ♂, 2 ♀ Mindanao. 10 ♂, 2 ♀ Mindoro. 11 ♂, 1 ♀ Philippines. 1 ♂ Sangir. 1 ♂ Talaut. 2 ♂, 1 ♀ Batchian.

(e) ♂ border F narrower. Below redder brown.

Sub-sp. *termerion* Fruhstorfer 1914: ♂ Bazilan; type B.M. Only the type in B.M.

(f) ♂ F 17 mm., dark purple-blue, border narrower. Unh outer third free from maculation, except for the ternal metallic spots.

Sub-sp. *buruensis* Holland 1900: ♂ Buru. 1 ♂ Obi. 3 ♂ Buru.

- 16a (7c). Unh discal spot in space 6 not nearly equal to the gap between the end-cell spot and the discal spot in space 5.
 16b (18a). Unh discal spot in space 6 not overlapping the spot in space 5.
 16 (17). Unh purple washed. ♂ 20 mm., purple-blue, border 1 mm. F, 2 mm. H. Name formerly wrongly used for *setta*.
alea Hewitson 1862: ♂ India. 3 ♂, 1 ♀ Mysore. 2 ♂, 2 ♀ Coorg. 1 ♂, 1 ♀ Nilgiris. 36 ♂, 22 ♀ N. Kanara.
 Synonym *canaraica* Moore 1884: ♂ N. Kanara; type B.M.
- 17 (16). Unh plain brown. There seem to be 2 forms flying together with identical and very peculiar genitalia (see Corbet 52 g). Not seasonal forms; possibly ecological sub-species.
oenea. Two sub-species.
 (a) ♂ F 19 mm., bright dark blue, border 1 mm. to a thread: uph space 6 half brown. Below, light brown, markings faint: no ternal metallic scaling.
 Sub-sp. *oenea* Hewitson 1869: ♂ Sikkim; type B.M. 1 ♀ Mussoorie. 17 ♂, 15 ♀ Sikkim. 12 ♂, 14 ♀ Assam. 1 ♂ N. Burma. 2 ♂, 3 ♀ N. Shan States.
 (b) ♂ F 22 mm., very dark blue, border a thread: uph space 6 mostly blue. Below, as *oenea* but unh with a black ternal lobe and a more or less black spot alongside it crowned with metallic scales.
 Sub-sp. *khamti* Doherty 1891: ♂ Assam; type B.M. 4 ♂, 4 ♀ Sikkim. 6 ♂, 4 ♀ Assam. 1 ♂ Chittagong. 2 ♂, 3 ♀ Hainan.
- 18a (16b). Unh discal spot in space 6 overlaps spot in space 5.
 18 (19). Upf ♂♀ no conspicuous dark spot at end of cell. ♂ F 18 mm. dull purple-blue, border 3 mm. F: on H, blue not extending beyond end cell. ♀ lighter blue. Below, grey brown, with a slight purple wash (see Appendix 4 for name).
atraz Hewitson 1867: ♀ Bengal; type B.M. 1 ♂ Niligiris. 8 ♂, 6 ♀ Poona. 5 ♂, 5 ♀ Pachmarhi. 6 ♂, 6 ♀ Orissa. 4 ♂, 4 ♀ Bengal. 3 ♂, 3 ♀ Murree. 5 ♂, 5 ♀ Mussoorie. 1 ♂ Simla. 3 ♂, 3 ♀ Kumaon. 3 ♂, 3 ♀ Nepal. 8 ♂, 8 ♀ Sikkim. 1 ♂, 1 ♀ Assam. 24 ♂, 34 ♀ Burma to Ataran.
 Synonyms *alemon* De Nicéville 1891: ♂ Burma.
hewitsoni Bethune-Baker 1903: ♂ India; type B.M.
- 19 (18). ♂♀ upf with a conspicuous dark spot at end of cell. ♂ F 20 mm., purple-blue, border 3 mm.: uph blue area to just beyond end cell. ♀ bluer. Unh no green scaling. Fig. Corbet 62 g.
alax Evans 1932: ♂ Manipur; type B.M. 17 ♂, 18 ♀ Manipur. 12 ♂, 4 ♀ N. Burma. 9 ♂, 10 ♀ N. Shan States. 6 ♂, 8 ♀ S. Shan States. 1 ♂, 1 ♀ Karens. 2 ♂, 12 ♀ Ataran. 3 ♂, 1 ♀ W. Siam.
- 20a (7b). Unf discal spot in space 4 shifted outwards out of line with the spots in spaces 5 and 6; unf. a spot present mid space 11.

Democritus Sub-group

- 20 (21a). Unh outer edge of discal spot in space 6 concave.
democritus. Four sub-species. Fig. Corbet 37 and 42 g.
 (a) ♂ F 18 mm., pale metallic silvery blue, shading to violet at apex F, border $\frac{1}{2}$ mm. Below dark chocolate with white dots and dashes.
 Sub-sp. *democritus* Fabricius 1793: ♂ E. Indies. 10 ♂, 11 ♀ Karens. 10 ♂, 1 ♀ Ataran. 8 ♂, 9 ♀ Tavoy. 7 ♂, 7 ♀ Mergui. 8 ♂, 8 ♀ Victoria Point. 1 ♂ Indo-China. 2 ♂, 1 ♀ Siam. 6 ♂, 6 ♀ Peninsular Siam. 3 ♂, 3 ♀ Langkawi Is. 4 ♂, 1 ♀ Malaya (N. Kedah, Perlis, Wellesley). 1 ♂ "Sumatra". 1 ♂ "Java".
 Synonym *albopunctata* Hewitson 1869: ♂ Moulmein; type B.M.

(b) Below, duller with inconspicuous markings of the usual type. Above, ♂ nearly as bright as *democritus*: ♀ more purple-blue, with narrow borders, $\frac{1}{2}$ mm. on uph. ♂ F 19 mm.

Sub-sp. *lycaenaria* Felder 1860: ♂ Malacca; type B.M. 1 ♂ "Naga Hills". 7 ♂, 8 ♀ Perak. 5 ♂, 5 ♀ Pahang. 6 ♂ Malacca. 1 ♂, 1 ♀ Taiping. 12 ♂, 6 ♀ Singapore.

(c) Larger, ♂ F 20 mm. Intermediate to *olinda*.

Sub-sp. *buxtoni* Hewitson 1878: ♀ Sumatra: type B.M. 12 ♂, 10 ♀ Sumatra.

(d) ♂ more uniform: ♀ purple with much broader borders, 3mm. on H, and upf with a dark spot at end of cell.

Sub-sp. *olinda* Druce 1873: ♂ Borneo; type B.M. 13 ♂, 17 ♀ Borneo.

21a (20). Unh outer edge of discal spot in space 6 convex or straight.

21b (25a). Unf with a spot at base of space 10: rarely absent on one side.

21c (23a). Below, markings conspicuously darker than the ground.

21 (22). Unh grey-brown.

alitaeus. Six sub-species. Fig. Corbet 38 and 43 g.

(a) ♂ F 19 mm., bright blue, border 1 mm.: uph space 6 half blue. Below brown with more or less of a purple wash, markings irregular, as in in *alitaeus*.

Sub-sp. *mirabella* Doherty 1889: ♀ Mergui; type B.M. 1 ♂ Karens. 9 ♂, 7 ♀ Ataran. 8 ♂, 10 ♀ Tavoy. 9 ♂, 8 ♀ Mergui. 7 ♂, 9 ♀ Victoria Point. 5 ♂ Siam. 3 ♂ Langkawi Is.

Synonym *valika* Corbet 1941: ♂ Langkawi Is.; type B.M.

(b) ♂ upf border narrower, $\frac{3}{4}$ mm.

Sub-sp. *pardenas* Corbet 1941: ♂ Singapore; type B.M. 3 ♂, 3 ♀ Malaya.

(c) ♂ duller, purple blue, border $\frac{3}{4}$ to $\frac{1}{2}$ mm. Below, markings rather less conspicuous.

Sub-sp. *mira* Corbet 1941: ♂ Borneo; type B.M. 5 ♂, 4 ♀ Borneo. 2 ♂ Mentawi Is.

Synonym *psama* Corbet 1941: ♂ Mentawi Is.; type B.M.

(d) ♂ F 20 mm., border a thread. Below, with a slatey glaze and a more uniform appearance.

Sub-sp. *myrtale* Staudinger 1889: ♂ Palawan. 5 ♂ Palawan.

(e) Unh more or less whitened, presenting an appearance quite different from *myrtale*.

Sub-sp. *panta* nov.: ♂ Mindanao; type B.M. 5 ♂ Mindanao. 1 ♂ Luzon.

(f) ♂ F 20 mm., dark blue, border 1 mm. ♀ very different, all brown except for some dull purple on basal half upf.

Sub-sp. *alitaeus* Hewitson 1862: ♂ Makassar; type B.M. 19 ♂, 19 ♀ Celebes.

Synonym *viviana* Röber 1887: ♂ Bangkei.

22 (21). Unh dark brown with a purple wash. ♂ F 20 mm., dark blue, border $\frac{1}{2}$ mm. ♀ purple-blue, border 3 mm.: uph all brown. Genitalia differ considerably.

sintanga Corbet 1948: ♂ Borneo; type B.M. 2 ♂, 2 ♀ Borneo.

23a (21c). Below, markings not darker than ground.

23 (24). ♂ above, dark blue with a dark border.

mindanensis. Four sub-species.

(a) ♂ F 20 mm., blue, border 1 mm. ♀ brighter blue, border 4 mm. Below, markings outlined brownish-white.

Sub-sp. *epibata* Corbet 1948: ♂ Singapore; type B.M. 14 ♂, 2 ♀ Malaya.

(b) Smaller, ♂ F 19 mm., more purple-blue: ♀ purple.

Sub-sp. *contra* nov.: ♂ Borneo; type B.M. 2 ♂, 1 ♀ Sumatra. 11 ♂, 5 ♀ Borneo.

(c) F less produced: below rather like *myrtale*: ♀ very dark, upf basal third dull purple, uph all brown.

Sub-sp. *mindanensis* Bethune-Baker 1903: ♂ Mindanao; type B.M. 9 ♂, 4 ♀ Mindanao.

(d) As *mindanensis*, but unh whitened.

Sub-sp. *zilensis* Fruhstorfer 1914: ♂ Bazilan; type B.M. 1 ♂ Bazilan.

- 24 (23). ♂ above, bright shining blue, border a thread : uph space 6 all blue : F 19 mm. ♀ purple blue, border 2 to 3 mm., dark spot about end of cell upf. Below rather pale brown, markings as in *alitaeus*. Uncus hooks not expanded at their ends.

denta nov. : ♂ Mt. Marapok, Dent Province, Borneo ; type B.M. 14 ♂, 5 ♀ Borneo. Fig. Corbet 46 g as *elopura*.

- 25a (21b). Unf no spot at base of space 10.

25 (26a). Unf spots in spaces 4 to 7 almost in line.

aida. Two sub-species. Fig. Corbet 44 g (see Appendix 4).

(a) ♂ F 18 mm., dark shining blue, border $1\frac{1}{2}$ mm. Uph one-third of space 6 blue. Below grey-brown.

Sub-sp. *aida* De Nicéville 1889 : ♂ Pegu Yoma, Burma. 7 ♂, 2 ♀ S. Shan States. 3 ♂ Ataran. 12 ♂, 10 ♀ Tavoy. 9 ♂, 6 ♀ Mergui. 2 ♂, 2 ♀ Victoria Point. 3 ♂, 2 ♀ Siam. 1 ♂, 2 ♀ Indo-China. 26 ♂, 12 ♀ Hainan. 2 ♂, 3 ♀ Peninsular Siam. 3 ♂, 3 ♀ Langkawi Is. 1 ♂ E. Indies (Hewitson's *atrax* ♂).

(b) ♂ F 16 mm., bright shining blue, border 1 mm. : uph half of space 6 blue. Below, with distinct purple gloss. Fig. Corbet 39 as *atrax*.

Sub-sp. *ophir nov.* : ♂ Mt. Ophir, Malaya ; type B.M. Only the type.

- 26a (25). Unf spots in spaces 4 to 7 irregular, those in spaces 4 and 7 out of line.

26 (27a). ♂ upf border broad, 3 mm. : F 18 mm. Uph $\frac{3}{4}$ of space 6 brown. Below grey-brown.

myrtha Staudinger 1889 : ♂ Palawan. 3 ♂ Palawan.

- 27a (26). ♂ upf border not > 1 mm.

27 (28). Below brown, markings not darker than the ground.

pseudomuta. Four sub-species. Fig. Corbet 40 and 45 g as *arianaga*.

(a) ♂ F 20 mm., bright shining blue, border $\frac{3}{4}$ mm.

Sub-sp. *ariana* Evans 1925 : ♂ Tavoy ; type B.M. 3 ♂, 2 ♀ Ataran. 9 ♂, 6 ♀ Tavoy. 5 ♂, 2 ♀ Mergui. 2 ♂, 2 ♀ Victoria Point.

(b) Darker shining blue, border 1 mm. Flies with *ariana*.

Sub-sp. *dama* Swinhoe 1910 : ♂ Mergui ; type B.M. 2 ♂, 3 ♀ Ataran. 2 ♂, 3 ♀ Tavoy. 23 ♂, 25 ♀ Mergui. 8 ♂, 3 ♀ Victoria Point. 1 ♂, 1 ♀ Siam. 1 ♂ Annam. 1 ♂, 1 ♀ Peninsular Siam. 1 ♂ Langkawi Is.

Synonym *ariavana* Corbet 1941 : ♂ Langkawi Is. : type B.M.

(c) ♂ F 20 mm., dark blue, border $\frac{1}{2}$ mm. : uph more than half of space 6 is blue (see Appendix 5 for name).

Sub-sp. *pseudomuta* Staudinger 1889 : ♂ Malaya. 29 ♂, 13 ♀ Malaya.

Synonyms *rafflesii* De Nicéville 1890 : ♂ Singapore ; type B.M. Fig. Corbet 41.

arianaga Corbet 1941 : ♂ Malaya ; type B.M.

(d) ♂ 18 mm., wings more rounded, border a thread.

Sub-sp. *elopura* Druce 1894 : ♂ Borneo ; type B.M. 3 ♂, 1 ♀ Sumatra. 4 ♂, 13 ♀ Borneo. 1 ♀ "Lombok".

- 28 (27). Below, purple washed : markings darker than the ground.

havilandi. Two sub-species.

(a) Smaller, ♂ F 18 mm., brighter blue, border a thread. ♀ blue.

Sub-sp. *kota nov.* : ♂ Kota Tinggi, Johore, 1st May 1938 : J. N. Eliot ; type B.M. 2 ♂, 2 ♀ Malaya.

(b) ♂ F 22 mm., border $\frac{1}{2}$ mm. Uph nearly all space 6 blue.

Sub-sp. *havilandi* Bethune-Baker 1896 : ♂ Borneo. 3 ♂, 4 ♀ Borneo.

G. EUMOLPHUS GROUP OF NARATHURA

- 1 (2a). H tornal lobe conspicuously projecting.

Nobilis Sub-group

nobilis. Four sub-species. Fig. Seitz 149f.

- (a) ♂ F 27 mm., dark shining blue border $\frac{1}{2}$ mm. ♀ dull purple with very broad borders. Below, uniform brown. Unf costal spots in spaces 7, 10, 11: discal spots in spaces 4, 5 out of line, elongate, nearly reaching termen.

Sub-sp. *alce* Hewitson 1862: ♂ "Aru" (probably Halmaheira); type B.M. 1 ♀ "Celebes".
7 ♂, 1 ♀ Halmaheira. 2 ♂ Aru.

Synonym *ajusa* Fruhstorfer 1913: ♂ Halmaheira; type B.M.

- (b) Similar, but ♀ blue with narrow dark border. Below, less strongly marked. ♂ brighter blue.

Sub-sp. *nobilis* Felder 1860: ♂ Amboina; type B.M. 1 ♂ Obi. 1 ♂ Amboina. 2 ♂, 1 ♀ Ceram. 1 ♀ Key Is.

Synonym *nobilior* Fruhstorfer 1913: ♂ Obi; type B.M.

- (c) ♂ F 25 mm. Unh variegated, much paler and markings fainter below a dark costal area obscuring the spots.

Sub-sp. *alcestis* Grose Smith 1902: ♂ Milne Bay; type B.M. 1 ♀ "Batchian". 1 ♂ Gebi. 1 ♂ Aru. 8 ♂, 3 ♀ W. New Guinea. 2 ♂ British New Guinea.

Synonyms *athara* Grose-Smith 1902: ♂ Stephansort; type B.M. A variety with a darker underside.

caelestis Röber 1931: ♂ SW. New Guinea.

- (d) F ♀ 20 mm. Above, as *alcestis*. Below plain brown with faint markings.

Sub-sp. *bosnikiana* Joicey & Talbot 1916: ♀ Schouten Is.; type B.M., and 1 ♀ Mefor Is., Geelvink Bay.

- 2a (1) H tornal lobe not conspicuously projecting.

2b (8a). Below, markings macular, not banded.

Wildei Sub-group

- 2 (3a). Unf with a costal spot in space 10. ♂ F 26 mm.

antharita. Two sub-species.

- (a) ♂ very dark blue, border 7 to 8 mm.: uph only blue in cell. ♀ bright purple blue, border 3 mm. Below, ♂ light brown, ♀ nearly white: unh costal markings enlarged and conjoined.

Sub-sp. *hyacinthus* Röber 1931: ♂ SW. New Guinea: figured. 1 ♂, 7 ♀ W. New Guinea (Eilanden and Oetakwa Rivers).

- (b) ♂ above, entirely dark brown, with some obscure blue scaling about end cell F.

Sub-sp. *antharita* Grose-Smith 1894: ♂ Humboldt Bay; type B.M.: figured *Rhop. Exot.* 1878. Only the type.

- 3a (2). Unf no costal spot in space 10.

3b (5a). Unf discal spots in spaces 6, 5, 4 directed to mid-termen.

3 (4). Below white with small brown markings.

wildei. Three sub-species. Fig. Seitz 147 g.

- (a) ♂ F 21 mm., light blue, border 2 to 3 mm., dark spot end cell F. ♀ white with dark borders 5 mm. and blue bases.

Sub-sp. *wildei* Miskin 1891: ♂ Cairns. 36 ♂, 11 ♀ Queensland.

Synonym *cupido* Bethune-Baker 1903: cited as a synonym.

- (b) ♀ uph white area reduced, entire costa and apex dark brown. Smaller.

- Sub-sp. *soda* nov.: ♀ Sudest Is.; type B.M. 1 ♂, 2 ♀ Sudest Is. 1 ♂, 1 ♀ Woodlark Is.
 (c) ♀ F 23 mm., no blue colouring at bases F and H, or dark spot at end of cell upf in ♂ or ♀.
 Sub-sp. *neva* nov.: ♀ Stephansort; type B.M. Type and 1 ♂ W. New Guinea (Ninay Valley).

- 4 (3). Below brown with conspicuously white ringed large markings: unh discal spots in spaces 6, 7 united to a single large round spot. ♂ F 23 mm., light purple-blue, border 2 to 3 mm., as in *wildei*.
halma nov.: ♂ Halmaheira; type B.M. 2 ♂ type locality.

- 5a (3b). Unf discal spots in spaces 6, 5, 4 directed to tornus.
 5 (6a). Unf discal spots in spaces 2, 3 much smaller than those in spaces 4 to 6. ♂ F 17 mm., dull pale blue, border $2\frac{1}{2}$ mm., dark spot end cell F. ♀ inner half of disc dull light blue, outer half white: dark border 6 to 4 mm., dark spot end cell: uph similar, pale area more restricted. Below, light grey, markings white-edged.
asma nov.: ♂ Woodlark Is.; type B.M. 1 ♂, 1 ♀ Woodlark Is.

- 6a (5). Unf discal spots in spaces 2, 3 not smaller than those in spaces 4 to 6.
 6 (7). Unf discal spot in space 1b absent or faint.
irma. Two sub-species.
 (a) ♂ F 22 mm., shining light blue, border 2 to 1 mm., veins narrowly black. Below light brown, markings faint.
 Sub-sp. *irma* Fruhstorfer 1914: ♂ Obi; type B.M., unique.
 (b) Light purple-blue, veins not black. ♀ shining light blue, border 6 to 2 mm. Below, violet brown, markings clear.
 Sub-sp. *purpura* nov.: ♂ Oetakwa River, W. New Guinea; type B.M. 1 ♂ (type): 1 ♀ Ron Is. (W. Doherty, 1897).

- 7 (6). Unf discal spot in space 1b conspicuous. ♂ F 26 mm., shining light blue, border $2\frac{1}{2}$ to 1 mm. on F and $\frac{1}{2}$ mm. on H. ♀ light blue, border 7 mm. Below, dark brown, white-edged darker markings.
halmaheira Bethune-Baker 1904: ♂ Halmaheira: type B.M. 4 ♂, 2 ♀ Halmaheira.

- 8a (2b). Below, markings banded.
 8b (11a). Below, markings not darker than ground.

Acetes Sub-group

- 8 (9a). Unh in space 7 central spot not nearer to the basal than to the discal spot. ♂ F 22 to 30 mm., dark blue, border a thread. ♀ purple-blue on basal third F and in cell H. Fig. Seitz 149d and 150a and b.
acetes Hewitson 1862: ♀ Macassar; type B.M. 31 ♂, 19 ♀ Celebes. 2 ♂ Bangkai. 1 ♂ Talaut. 1 ♂ Toeken Besi.
 Synonym *kijila* Ribbe 1926: W. Celebes.
- 9a (8). Unh in space 7 central spot much nearer to the basal than to the discal spot.
 9 (10). Unf and unh lower part of end-cell spot expanded outwards.
tephlis. Two sub-species. Fig. Seitz 149 e (poorly).
 (a) Unh more or less whitened beyond the discal band and above the cell: in one ♂ unf is also whitened. ♂ F 23 mm., purple-blue, border $2\frac{1}{2}$ to $1\frac{1}{2}$ mm.: ♀ blue, border 8 mm.
 Sub-sp. *bicolora* Röber 1886: ♀ S. Celebes. 23 ♂, 15 ♀ Celebes.
 (b) Unh a white streak from base to termen over cell and vein 6. ♂ upf dark border narrow, $1\frac{1}{2}$ to $\frac{1}{2}$ mm.
 Sub-sp. *tephlis* Hewitson 1869: ♂ Gilolo; type B.M. Unique.

10 (7). Unf and with unh lower part of end-cell spot not expanded outwards.

bazaloides. Two sub-species. Fig. Corbet 80 g. Seitz 148a.

(a) ♂ upf dark border 1 mm. : uph half of space 6 blue.

Sub-sp. *lanka nov.*: ♂ Ceylon; type B.M. Unique.

(b) ♂ F 21 mm., dark purple-blue, border 2 mm. : uph space 6 mostly brown. ♀ lighter purple-blue, border 4 mm. Unh very variable, purple-brown, more or less white scaled : ternal metallic scaling vestigial.

Sub-sp. *bazaloides* Hewitson 1878: ♀ ? loc. ; type B.M. 1 ♂ Travancore. 1 ♀ Mysore. 4 ♂, 4 ♀ Coorg. 15 ♂, 16 ♀ N. Kanara, S. India. 15 ♂, 10 ♀ Assam. 1 ♀ Renong, Siam. 2 ♀ Hainan. (Langkawi Is., Corbet).

11a (8b). Below, markings darker than the ground.

Eumolphus Sub-group

11b (20a). Unh discal spot in space 6 outwardly concave.

11 (12a). Unf dark area under cell extends to the discal band. H cell < ½ wing.

amantes. Three sub-species. Fig. Seitz 147f. Corbet 83 g. Fig. of *amantes* in *Rhop.*

Java is araxes onetor Fruh.

(a) ♂ F 27 mm., shining blue, border ½ mm. ♀ lighter, borders very broad. Below, grey-brown, paler apically on F and H.

Sub-sp. *amantes* Hewitson 1862: ♂ Ceylon; type B.M. 15 ♂, 15 ♀ Ceylon. 8 ♂, 4 ♀ S. India. 13 ♂, 13 ♀ N. Kanara. 6 ♂, 6 ♀ Poona.

(b) ♂ upf border broader, 4 mm. at apex to 2 mm. at dorsum. Generally paler below and has slightly different seasonal forms.

Sub-sp. *apella* Swinhoe 1886: ♂ Mhow; type B.M. 9 ♂, 7 ♀ C. India. 15 ♂, 15 ♀ Orissa. 2 ♂, 1 ♀ Ganjam. 12 ♂, 11 ♀ Bengal. 10 ♂, 8 ♀ Mussoorie to Kumaon. 6 ♂, 2 ♀ Sikkim, 1 ♂ "Borneo".

(c) ♂ upf dark border 4 mm. on F and 7 mm. on H.

Sub-sp. *amatrix* De Nicéville 1891: ♂ Tilin Yaw, N. Burma. 8 ♂, 3 ♀ Tilin Yaw. 13 ♂, 2 ♀ Pegu Yoma. 2 ♂ S. Shan States. 4 ♂, 2 ♀ Karens. 1 ♂, 1 ♀ Bassein. 8 ♂, 8 ♀ Ataran. 1 ♀ Tavoy. 5 ♂ Siam.

12a (11). Unf dark area under cell not extending beyond mid wing. H cell = ½ wing.

12 (13a). Unh spots mid space 7 and mid cell conjoined. ♂ F 23 mm., purple, border 2 mm. and a black spot at end of cell. ♀ purple-blue with broad borders. Below, variegated with yellow, purple, grey and brown areas. Fig. *Lep. Ind.* Corbet 82 g.

singla De Nicéville 1885: ♂ Sikkim. 1 ♂ Mussoorie. 1 ♂, 1 ♀ Kumaon. 1 ♀ Nepal. 7 ♂, 6 ♀ Sikkim. 3 ♂, 1 ♀ Bhutan. 19 ♂, 13 ♀ Assam. 26 ♂, 13 ♀ N. Burma to Karens. 1 ♂ Yunnan. 1 ♀ "Perak".

13a (12). Unh spots mid space 7 and mid cell wide apart as usual.

13b (19). Unf discal spot in space 4 not nearer to termen than to the end-cell spot.

13 (14a). Unh and apex unf powdered pale violet scales. ♂ blue. Considerable seasonal and individual variation.

bazalus. Four sub-species. Fig. Corbet 59 and 81 g.

(a) Unh costal half of wings conspicuously paler, markings faint, ternal lobe brown, white scaling under the ternal metallic scaling usually absent. ♀ purple-blue.

Sub-sp. *turbata* Butler 1881: ♂ Japan; type B.M. 21 ♂, 24 ♀ Japan.

(b) Unh markings yellowish on the white-scaled purple-brown ground. Unh of wet season form more uniform, ternal lobe black with some metallic green scaling.

Sub-sp. *teesta* De Nicéville 1886: ♂ Sikkim; type B.M. 6 ♂, 4 ♀ China (W. and SE.). 3 ♂, 5 ♀ Formosa. 2 ♂ Kumaon. 17 ♂, 15 ♀ Sikkim. 17 ♂, 17 ♀ Assam. 3 ♂, 12 ♀ N. Burma to Karens. 1 ♂ Mergui. 1 ♂, 1 ♀ Peninsular Siam.

(c) ♀ quite different from other forms. Large, F 24 mm., clear blue, dark border on costa F to vein 6, leaving dark spot end cell and another mid-space 5; border $2\frac{1}{2}$ mm. mid-termen: uph mostly blue with dark veins, border 5 mm. to $2\frac{1}{2}$ mm. mid-termen.

Sub-sp. *zalinda* Corbet 1941: ♀ Kedah; type B.M. 1 ♂, 2 ♀ Kedah, Malaya.

(d) ♂ F 23 mm., very dark blue, border F 1 mm., H 4 mm. Below, like *teesta* wet season form. ♀ more purple-blue than blue.

Sub-sp. *bazalus* Hewitson 1862: ♀ Java; type B.M. 1 ♀ Malaya. 2 ♂, 10 ♀ Sumatra. 24 ♂, 18 ♀ Java.

Synonyms *nebenius* Fruhstorfer 1914: ♀ Sumatra; type B.M.

pratinas Fruhstorfer 1914: ♂ W. Java; type B.M.

14a (13). Unh and apex unf no pale violet scaling. ♂ green.

14 (15a). ♂ upf apical half black.

horsfieldi. Four sub-species. Fig. Corbet 63 and 77 g.

(a) Above green colour brighter, more extensive. ♀ blue, border $3\frac{1}{2}$ mm.

Sub-sp. *eurysthenes* Fruhstorfer 1914: ♂ Tenasserim. 1 ♂, 1 ♀ Karens. 2 ♂, 3 ♀ Ataran. 18 ♂, 18 ♀ Mergui. 3 ♂, 4 ♀ Victoria Point. 2 ♂ Peninsular Siam. 1 ♂ Langkawi Is.

(b) Larger, ♂ F 24 mm., extent of green colour very variable, ♀ purple. Below ochreous-brown with broad markings.

Sub-sp. *basiviridis* De Nicéville 1891: ♂ Malaya. 12 ♂, 1 ♀ Malaya. 26 ♂, 6 ♀ Sumatra. 4 ♂ Banka. 17 ♂, 4 ♀ Borneo.

Synonyms *herodianus* Fruhstorfer 1914: ♂ W. Sumatra; type B.M.

leokrates Fruhstorfer 1914: ♂ Borneo; type B.M.

(c) Unh tornal metallic scaling larger. ♀ above dark border broader.

Sub-sp. *serpa* Fruhstorfer 1899: ♂ Nias. 6 ♂, 3 ♀ Nias.

Synonym *biru* Fruhstorfer 1914: ♂ Nias; type B.M.

(d) Small, ♂ F 20 mm.: base to mid-wing shining green and in cell H. ♀ purple, border as in ♂. Below, grey-brown, with small markings, conspicuous on F, faint on H.

Sub-sp. *horsfieldi* Pagenstecher 1890: ♂ Java. 24 ♂, 16 ♀ Java.

Synonym *vellanus* Fruhstorfer 1914: ♂ W. Java; type B.M.

15a (14). ♂ upf green extending nearly to apex.

15b (18). ♂ uph with a broad dark border.

15c (17). Unh discal spots normal.

15 (16). ♂ wings not produced, termen F convex: upf border at apex 1 to 3 mm.

eumolphus. Four sub-species. Fig. Corbet 62 and 76 g.

(a) ♂ F 23 mm., border 3 mm. at apex to 4 mm. at dorsum; uph green to just beyond end cell. ♀ purple-blue, border 6 to 7 mm.

Sub-sp. *eumolphus* Cramer 1780: ♂ Bengal Coast. 28 ♂, 26 ♀ Sikkim. 15 ♂, 7 ♀ Assam, 1 ♂, 5 ♀ N. Burma. 2 ♂, 3 ♀ S. Shan States. 14 ♂, 8 ♀ Karens. 4 ♂, 5 ♀ Bassein. 3 ♂, 1 ♀ Ataran. 8 ♂ Siam. 20 ♂, 14 ♀ Hainan.

Synonyms *bupola* Hewitson 1878: ♀ Sikkim; type B.M.

elis Fruhstorfer 1914: ♂ Sikkim; type B.M.

tagore Fruhstorfer 1914: ♂ Assam; type B.M.

(b) ♀ purple area much more extensive, border 3 mm. on F and H. ♂ border F narrower.

Sub-sp. *maxwelli* Distant 1885: ♀ Malaya. 2 ♀ Ataran. 1 ♂ Tavoy. 12 ♂, 6 ♀ Mergui. 1 ♀ Cochin-China. 1 ♀ Peninsular Siam. 22 ♂, 16 ♀ Malaya. 25 ♂, 26 ♀ Sumatra.

1 ♂ N. Pagi Is. 15 ♂, 9 ♀ Banka. 19 ♂, 14 ♀ Borneo.

Synonyms *farquhari* Distant 1885: ♂ Malaya; type B.M.

caesarion Fruhstorfer 1914: ♂ Sumatra; type B.M.

caesetius Fruhstorfer 1914: ♂ Borneo.

(c) ♀ bright pale blue instead of purple.

Sub-sp. *adonias* Hewitson 1862: ♀ Java; type B.M. 28 ♂, 32 ♀ Java.

Synonyms *grynea* Hewitson 1878: ♀ Java; type B.M.

aytonia Fruhstorfer 1914: ♀ W. Java; type B.M.

(d) ♀ paler than *adonias*.

Sub-sp. *aristomachus* Fruhstorfer 1914: ♀ Palawan. None in B.M.

16 (15). ♂ wings produced, termen F straight. ♂ upf border at apex not $> \frac{1}{2}$ mm.

hellenore. Two sub-species. Fig *Lep. Ind.*

(a) ♂ F 24 mm. Below more or less variegated: costal half H and apical half F more or less whitened. ♀ purple-blue, border F 4 mm. Unh tornal metallic scaling faint or absent.

Sub-sp. *hellenore* Doherty 1889: ♂ Mergui. ♂ Chittagong. 17 ♂, 19 ♀ Assam. 3 ♂, 3 ♀ N. Burma. 17 ♂, 15 ♀ Shan States. 9 ♂, 2 ♀ Karens. 9 ♂, 9 ♀ Ataran. 8 ♂, 1 ♀ Tavoy. 1 ♂ Mergui. 1 ♂ N. Siam. 6 ♂, 2 ♀ Cambodia. 5 ♂, 6 ♀ Hainan. 1 ♂ "Java"

Synonyms *viridissima* Swinhoe 1890: ♂ Mandalay; type B.M.

sanherib Fruhstorfer 1914: ♂ Java; type B.M. Fig. in *Rhop. Java*, but locality seems very doubtful.

(b) ♂ upf border very narrow, not reaching apex. Unh metallic scaling conspicuous. ♀ differs from *maxwelli* in the greater extent of the purple beyond the cell upf and between the veins above the costa.

Sub-sp. *siroes* Fruhstorfer 1914: ♂ Sumatra; type B.M. 12 ♂, 7 ♀ Sumatra. (From Malaya in coll. Eliot.)

17 (15c). Unh discal spots abnormal, those in spaces 6, 7 enlarged and conjoined to the spots mid-space 7 and mid-cell. ♂ above, as *eumolphus*. ♀ purple-blue scaling to beyond end cell upf, leaving a dark spot end cell, dark border $6\frac{1}{2}$ mm. Fig. Seitz 150d.

staudingeri Semper 1890: ♂ Mindanao. 1 ♀ Mindanao.

18 (15b). ♂ uph all green. Fig. Seitz 162a as *heliagabulus*.

chamaeleona. Two sub-species.

(a) ♂ F 25 mm. Below, uniform brown, no white areas: unh with well-developed tornal metallic scaling.

Sub-sp. *rileyi* Joicey & Talbot 1922: ♂ Ceram; type B.M. 4 ♂, 2 ♀ Ceram.

(b) ♂ F 23 mm., entirely green with a violet flush on outer half of wing in a side light. ♀ bright blue, border 4 mm. Below, variegated with whitened areas, as in *hellenore*: unh no metallic scaling.

Sub-sp. *chamaeleona* Bethune-Baker 1903: ♂ Aroa Bay; type B.M. 5 ♂, 3 ♀ Schouten Is. 3 ♂, 2 ♀ Mefor Is. 1 ♂, 3 ♀ Jobi Is. 4 ♂ W. New Guinea. 54 ♂, 5 ♀ British New Guinea.

Synonyms *elegabulus* Fruhstorfer 1914: ♂ Aroa R.; type B.M.

restricta Rothschild 1915: ♀ W. New Guinea; type B.M.

heliagabulus Seitz 1926: mis-spelling.

19 (13b). Unf discal spot in space 4 nearer to termen than to end-cell spot. ♂ F 23 mm., very dark purple-blue, border $\frac{1}{2}$ mm. at apex to 1 mm. at tornus and on H. ♀ purple-blue, border $2\frac{1}{2}$ mm. Below, dark purple brown. Fig. Seitz 150B b.

bella Bethune-Baker 1896: ♂ Borneo. 1 ♀ "Sikkim". 1 ♂, 3 ♀ Borneo.

20a (11b). Unh discal spot in space 6 not outwardly concave.

20b (22). Unf without a conspicuous dark area in basal half of space 1b.

20 (21). Below ochreous-brown. Fig. Seitz 150e, f.

tameanga. Two sub-species.

(a) ♂ F 22 mm., much lighter violet-blue. Unf discal band continued to vein 1. ♀ border narrower, decreasing to $1\frac{1}{2}$ mm. at tornus F and 1 mm. uph.

Sub-sp. *acta* nov. : ♂ Sumatra ; type B.M. 1 ♂ Sumatra. 1 ♀ Malaya.

(b) ♂ F 27 mm., very dark violet-blue, border a thread. ♀ lighter purple-blue, border 4 mm., and dark spot at end cell.

Sub-sp. *tameanga* Bethune-Baker 1896 : ♂ Borneo ; type B.M. 2 ♂, 1 ♀ Borneo. 1 ♀ Labuan.

21 (20). Below plain brown. Fig. Corbet 78 g and, as *bella*, 100.

overdijkinki Two sub-species.

(a) ♂ F 22 mm., shining rather dark violet blue, broad border, 7 mm. at apex to 2½ mm. at tornus, 1 mm. on H. ♀ brighter blue, border as ♂ and dark spot end cell F.

Sub-sp. *unda* nov. : ♂ "India" (probably Malaya) ex coll. Hewitson ; type B.M. 1 ♂, 1 ♀ Malaya. (♀ S. Johore in coll. Eliot).

(b) ♂ F 21 mm., lustrous purple, with outer half F from mid-costa to tornus broadly black : H with costal and apical half of outer margin broadly darkened. ♀ shining blue, with a dark spot at end of cell.

Sub-sp. *overdijkinki* Corbet 1941 : ♂ Java ; type B.M. 27 ♂, 21 ♀ Java.

22 (20b). Unf basal half of space 1b conspicuously dark brown.

corinda. Three sub-species. Fig. Corbet 57 and 72 g.

(a) Above paler, ♀ bluer.

Sub-sp. *corestes* Corbet 1941 : ♂ Langkawi Is. ; type B.M. 1 ♀ Ataran. 8 ♂, 2 ♀ Mergui. 1 ♀ Victoria Point. 4 ♂, 2 ♀ Langkawi Is.

(b) ♀ uph purple-blue colour as extensive as in ♂.

Sub-sp. *acestes* De Nicéville 1893 : ♂ Perak. 1 ♀ Malaya. 1 ♀ Sumatra. 5 ♂, 9 ♀ Borneo. 1 ♂, 1 ♀ Java.

(c) ♂ F 25 mm., very dark blue, border a thread. ♀ purple-blue, border 3 mm., continued along dorsum.

Sub-sp. *corinda* Hewitson 1869 : ♂ Philippines ; type B.M. 2 ♂, 1 ♀ Mindanao. 1 ♂, 1 ♀ Luzon. 2 ♂, 1 ♀ Philippines.

H. CENTAURUS GROUP OF NARATHURA

1a (12a). Unh discal band more or less broken at vein 6.

1b (8a). Unf discal band of even width or tapering towards dorsum.

1c (3a). Unh discal spot in space 6 outwardly concave.

1 (2). Unf discal band curved (see Appendix 6 for name).

centaurus. Seven sub-species. Fig. Seitz 150a. Corbet 93 and 70 g.

(a) ♂ F 29 mm., shining dark purple-blue : ♀ blue, basally conspicuously brighter : border 1½ to ½ mm. ♂, 8 to 3 mm. ♀.

Sub-sp. *pirama* Moore 1880 : ♂ Ceylon ; type B.M. 13 ♂, 13 ♀ Ceylon. 13 ♂, 13 ♀ N. Kanara.

(b) Above, more uniform, borders the same.

Sub-sp. *pirithous* Moore 1883 : ♂ NE. Bengal ; type B.M. 26 ♂, 26 ♀ Sikkim. 13 ♂, 13 ♀ Assam.

(c) ♂ upf border ½ mm. Above, bases much brighter.

Sub-sp. *coruscans* Wood-Mason & De Nicéville 1880 : ♂ Andaman Is. 13 ♂, 13 ♀ Andaman Is.

(d) Darker, uniform purple-blue, border ½ mm.

Sub-sp. *centaurus* Fabricius 1775 : ♂ "New Holland" (recte Malaya) ; type B.M. (Banks coll.). 41 ♂, 41 ♀ N. Burma to Victoria Point. 40 ♂, 40 ♀ Siam, Indo-China, Hainan.

24 ♂, 24 ♀ Malaya. 9 ♂, 2 ♀ Sumatra. 3 ♂ Nias. 5 ♂, 6 ♀ Banka. 1 ♂ Mentawi Is. 1 ♂ Natuna Is. 16 ♂, 10 ♀ Borneo.

Synonyms *nakula* Felder 1860 : ♂ Sumatra ; type B.M.

cervidius Fruhstorfer 1914 : ♂ Borneo ; type B.M.

(e) Large, ♂ F 30 mm. Above, as *centaurus*. Below markings broader and more showy, particularly the tornal metallic scaling.

Sub-sp. *centenitus* Fruhstorfer 1914: ♂ Batu Is.; type B.M. 1 ♂, 1 ♀ Batu Is. 1 ♂ N. Pagi Is.

(f) Below much more variegated than *centaurus*. Variable.

Sub-sp. *pseudo-centaurus* Doubleday 1847: ♀ Java; type B.M. 31 ♂, 31 ♀ Java. 9 ♂, 11 ♀ Bali. 1 ♂, 1 ♀ Kangean Is. 5 ♂, 7 ♀ Lombok. 6 ♀ Sumbawa. 20 ♂, "Aru" (probably Java).

Synonym *amazona* Pagenstecher 1890: ♂ Java.

(g) Unf white outer edge of the spot end cell nearly fused to the inner edge of the discal band. Unh variegated.

Sub-sp. *aglalis* Felder 1865: ♂ Luzon; type B.M. 7 ♂, 1 ♀ Luzon. 5 ♂ Philippines. 13 ♂, 1 ♀ Mindanao.

2 (1). Unf discal band straight.

araxes. Nine sub-species. Fig. Seitz 149 e and 149 b as *eupolis*.

(a) ♂ F 27 mm., shining blue, darker apically, border 1 mm. to a thread at dorsum F and H. Fig. *Rhop. Java* as *amantes*.

Sub-sp. *onetor* Fruhstorfer 1914: ♂ Savu; type B.M. 2 ♂ Sumatra. 1 ♂, 3 ♀ Java. 1 ♂ Sumbawa. 9 ♂, 9 ♀ Sumba. 9 ♂, 9 ♀ Savu Is. 3 ♂, 3 ♀ Kisser. 1 ♂ Wetter. 1 ♂ Alor. 1 ♂ Moa Is. 1 ♀ Timor. 2 ♀ Larau Luka Is.

Synonym *aphobus* Fruhstorfer 1914: ♂ Java; type B.M.

(b) ♂ like *araxes*, smaller. ♀ pale blue, dark border intermediate to *onetor*.

Sub-sp. *verelius* Fruhstorfer 1914: ♂ Kalao; type B.M. 3 ♂, 3 ♀ Kalao.

(c) Small, ♂ F 26 mm., darker, like *onetor*, ♀ as *araxes*.

Sub-sp. *talauta* nov.: ♂ Talaut; type B.M. 4 ♂, 4 ♀ Talaut.

(d) ♂ F 29 mm., brilliant shining blue, darkening apically, border 1½ mm. at apex to ½ mm. at dorsum and on H. ♀ light blue, dark border broader than the blue area.

Sub-sp. *araxes* Felder 1865: ♂ Celebes; type B.M. 12 ♂, 23 ♀ Celebes. 1 ♂, 2 ♀ Sangir. 2 ♂ Sula-Mangoli.

Synonym *grandiosa* Fruhstorfer 1914: ♂ Celebes.

(e) ♂ above dull purple, border a thread: ♀ bluer, border 3 mm. Below, light brown, no violet gloss. ♂ F 26 mm.

Sub-sp. *philtron* Fruhstorfer 1914: ♂ Yule Is.; type B.M. 4 ♂, 4 ♀ Key Is. 1 ♂, 1 ♀ Aru. 13 ♂, 11 ♀ New Guinea. 4 ♂, 4 ♀ Yule Is. 1 ♂ Sudest Is. 2 ♂, 2 ♀ St. Aignan. 1 ♂ New Hebrides.

(f) Similar, but below, with a violet gloss.

Sub-sp. *eupolis* Miskin 1890: ♂ Cape York. 29 ♂, 29 ♀ Queensland.

(g) Much duller than *eupolis*. ♀ more often purple.

Sub-sp. *asopus* Waterhouse & Lyell 1914: ♂ Darwin. 11 ♂, 11 ♀ Darwin.

(h) ♂ F 26 mm., dark shining blue, border ½ mm. ♀ bright shining blue, border 8 mm. on F, 1 mm. on H. Below much darker brown.

Sub-sp. *eurisus* Druce 1891: ♂ Guadalcanal; type B.M. 1 ♂, 2 ♀ St. Mathias. 2 ♂, 5 ♀ Squally Is. 7 ♂, 2 ♀ Witu. 3 ♂, 2 ♀ Duke of York Is. 6 ♂, 3 ♀ New Hannover. 13 ♂, 3 ♀ New Britain. 20 ♂, 13 ♀ New Ireland. 2 ♂ Tulagi. 1 ♂, 4 ♀ Niasan. 2 ♂ Treasury Is. 9 ♂, 16 ♀ Guadalcanal. 2 ♂, 3 ♀ Gavota Is. 2 ♂ Choiseul. 4 ♂, 4 ♀ Bougainville. 2 ♀ Ysabel Is. 1 ♂ Florida Is. 1 ♀ Shortland Is. 1 ♂ Vella Lavella. 1 ♀ Ulawa Is. 1 ♀ Fauro Is. 1 ♂ Rendova.

(i) ♀ purple instead of blue. Perhaps a dimorph.

Sub-sp. *tindali* Ribbe 1899: Shortland Is. 1 ♀ Malaita. 1 ♀ Bougainville. *Note*.— Absence of *araxes* in the Moluccas is remarkable.

3a (1c). Unh discal spot in space 6 not outwardly concave.

3b (5a). Unh discal spot in space 6 very broad and overlapping the end-cell spot.

3 (4). Unh a spot at the base of space 6 (a unique feature), which may be conjoined to the discal spot in space 6. Unf discal band broad and straight. ♂ F 26 mm., above as *meander*: below dark purple-brown, markings very broad.

lata nov.: ♂ Halmaheira; type B.M. 5 ♂ Halmaheira.

4 (3). Unh no spot at base of space 6. Unf discal band curved. Above as *meander*. Below, like *lata*. Unh usually a whitish area between the discal spots in spaces 6, 7 and the central spots. ♂ F 25 mm.

adherbal Grose-Smith: ♂ Milne Bay; type B.M. 1 ♂ Halmaheira. 1 ♂ Aru. 3 ♂ Waigou. 1 ♂ Amberfron Is. 16 ♂, 1 ♀ W. New Guinea. 5 ♂, 2 ♀ Central New Guinea. 3 ♂, 2 ♀ British New Guinea.

Synonym *appianus* Grose-Smith 1902: ♂ Humboldt Bay; type B.M.

5a (3b). Unh discal spot in space 6 not overlapping the end-cell spot.

5 (6, 7). Below, ochreous-brown with distinct narrow markings. Unf discal band narrow, straight, tapering towards tornus. ♀ F 20 mm., purple with broad dark borders, 7 mm. at apex to 5 mm. at dorsum F and 3 mm. on H.

wanda nov.: Wandesi, Geelvink Bay, New Guinea type B.M. Unique.

6 (5, 7). Below plain brown, markings faint: unf discal band irregular and broken at vein 4. ♂ F 22 mm., bright shining blue, border a thread: ♀ purple-blue; broad borders.

hylander Grose-Smith 1894: ♂ Schouten Is.; type B.M.: fig. *Rhop. Exot.* 2 ♂, 1 ♀ Schouten Is., New Guinea.

7 (5, 6). Below, very dark purple, markings well defined. Unf discal band sinuous, narrow. ♂ F 25 mm., dark blue, border a thread. Genitalia aberrant, distal end of clasp on ventral side very conspicuously produced.

styx nov.: ♂ New Britain, Kinigunang, C. Ribbe; type B.M. 2 ♂ New Britain. 1 ♂ Guadalcanal. 1 ♂ Ysabel, Solomon Is.

8a (1b). Unf discal band tapering to costa.

8 (9a). Unh discal band completely dislocated at vein 1b. Below, violet with more or less conspicuous whitish areas at apex F and H: unh mid-termen broadly darkened. F more produced. ♂ F 26 mm. (21 mm. in Louisade Is.). Above, like *meander* but dark border rather wider in Australia than elsewhere.

madytus Fruhstorfer 1914: ♂ Queensland; type B.M. 2 ♂ Amboina. 1 ♂ Aru. 1 ♂ Waigou. 16 ♂, 5 ♀ W. New Guinea. 10 ♂ Central New Guinea. 5 ♂ British New Guinea. 3 ♂ Woodlark Is. 4 ♂ St. Aignan. 6 ♂, 1 ♀ Sudest Is. 2 ♀ Russell Is.

9a (8). Unh discal band more or less constricted at vein 1b rather than dislocated.

9b (11). Unh discal spot in space 6 not overlapping the end-cell spot.

9 (10). Below, uniform violet (often fading to brown) with narrow and regular discal bands: unh discal band from space 2 to space 5 more or less in line. ♂ F 23 mm., dark blue, border a thread. ♀ purple, border broad on F narrow on H.

meander Boisduval 1832: ♂ W. New Guinea; type B.M. 6 ♂, 3 ♀ Waigou. 1 ♂ Salawati. 7 ♂ Mioswar Is. 1 ♂ Jobi. 36 ♂, 3 ♀ W. New Guinea. 11 ♂, 1 ♀ Central New Guinea. 5 ♂ British New Guinea. 2 ♂ Fergusson Is. 1 ♂ Dampier. 1 ♀ Vulcan Is. 2 ♂ "New Britain". 2 ♂ "Solomons".

Synonyms *periander* Grose-Smith 1894: ♂ Jobi; type B.M.

anicus Fruhstorfer 1914: ♂ "Solomons"; type B.M.

10 (9). Below brown or purple-brown, markings more or less irregular. Unh discal band with the spot in space 3 pushed out of line. Above, as *meander*.

philander. Eight sub-species. Fig. Seitz 150B a (badly).

(a) Below brown without any trace of purple wash. Unf discal band broad. Unh darker about mid-termen. ♂ F 26 mm.

Sub-sp. **philander** Felder 1865: ♂ Halmahera; type B.M. 1 ♂ "Sangir". 11 ♂, 5 ♀ Halmahera. 5 ♂ Batchian. 2 ♂, 2 ♀ Obi. 3 ♂ Gebi.

(b) ♂ F 25 mm. Below purple-brown, with somewhat irregular dark reddish-brown markings. Very variable: unf apical area may be whitish: unh centre of termen may be broadly darkened and central area may be whitish: some, all brown unh.

Sub-sp. **leander nov.**: ♂ Humboldt Bay; type B.M. 3 ♂, 1 ♀ Aru. 1 ♂ Misol. 30 ♂, 13 ♀ Waigou. 1 ♀ Amberfron Is. 11 ♂, 8 ♀ Schouten Is. 2 ♂, 1 ♀ Mefor Is. 2 ♂, 2 ♀ Roon Is. 10 ♂, 5 ♀ Jobi Is. 69 ♂, 13 ♀ W. New Guinea. 22 ♂, 5 ♀ Central New Guinea. 25 ♂, 6 ♀ British New Guinea. 1 ♀ Dampier. 5 ♂, 1 ♀ "New Britain". 2 ♂, 1 ♀ "Solomons". 1 ♂ "S. Burma" ex coll. Swinhoe and figured by him in *Lep. Ind.* as ♂ of *constanceae*! 1 ♀ "Burma Ataran" ex coll. Swinhoe.

(c) Below, paler, violet-grey. Unh centrally conspicuously darkened from base to mid-termen.

Sub-sp. **ander nov.**: ♂ Kapaur; type B.M. 3 ♂, 2 ♀ W. New Guinea.

(d) ♂ F 25 mm., as *philander* below, may have a faint purple wash. Darker blue above, like *gazella*.

Sub-sp. **pratti nov.**: ♂ Mioswar Is.: C. & J. Pratt; type B.M. 31 ♂, 4 ♀ Mioswar Is.

(e) ♂ F 24 mm. As *philander*, below brown with darker markings. Above, not so dark as *pratti*. ♀ above, purple with broad dark borders as in *leander*, much broader than in *philander*.

Sub-sp. **gander nov.**: ♂ Fergusson Is.: type B.M. 21 ♂, 9 ♀ Fergusson Is.

(f) ♂ F 24 mm., very much paler blue than any other form. Below, rather dark brown with a purple wash: markings rather narrow, but more conspicuously outlined than usual. Unf discal band centrally angled.

Sub-sp. **meeki nov.**: New Hannover: A. S. Meek; type B.M. 2 ♂, 1 ♀ New Hannover.

(g) ♂ F 26 mm. Lighter blue than usual, but not so light as *meeki*. Below, darker than any other form, with a well-marked purple wash: markings narrow and even, faintly outlined.

Sub-sp. **gazella** Fruhstofer 1913: ♂ New Britain; type B.M. 17 ♂, 3 ♀ New Britain. 26 ♂, 4 ♀ Witu Is.

(h) Large, ♂ F 27 mm. Above, rather dark blue, as *philander*. Below, dark brown, faint purple wash on outer half H and beyond discal band F: markings narrow, clearly defined.

Sub-sp. **eichhorni nov.**: ♂ New Ireland: A. F. Eichhorn; type B.M. 7 ♂, 3 ♀ New Ireland.

11 (9b). Unh discal spot in space 6 overlapping end-cell spot. Below, purple-brown, all markings very broad. ♂ F 22 mm. Above as *philander*. Fig. Seitz 149b and (as "menander") 147f.

kiriwinii Bethune-Baker 1903: ♂ Trobriand Is.; type B.M. 21 ♂, 9 ♀ Trobriand Is. 4 ♂ 1 ♀ Fergusson Is. 1 ♂ Woodlark Is. 6 ♂, 4 ♀ British New Guinea.

12a (1a). Unh discal band continuous from costa to vein 2. Unf discal band tapered towards dorsum.

12b (14a). Unh with the usual dark spots and discal band.

12 (13). Unh discal band more or less irregular and may be variegated. End of genitalia clasp equally divided.

micale. Sixteen sub-species. Fig. Seitz 149f.

(a) Unh markings broad: intervals between the spots in space 7 wider than the spots. ♂ F 25 mm., bright blue turning to violet-blue on outer half F, border a thread. ♀ blue, border F 6 mm. Unh usually a whitish area above cell.

- Sub-sp. *superba* Röber 1887: ♂ Batchian. 2 ♂ "Celebes". 21 ♂, 7 ♀ Halmaheira. 14 ♂, 4 ♀ Batchian. 4 ♂ Ternate. 3 ♂ Morotai. 1 ♂ "Amboina". 1 ♀ "Buru" 1 ♂ "Cape York".
- (b) Smaller, ♂ F 23 mm. ♀ border narrower, 1 to 2 mm. at dorsum F.
- Sub-sp. *obina* nov.: ♂ Obi; type B.M. 5 ♂, 5 ♀ Obi.
- (c) Unh markings narrow: intervals between the spots in space 7 wider than the spots. ♂ upf border at apex not $> \frac{1}{2}$ mm. ♂ above, shining pale blue darkening to violet-blue on apical half F. Below, very dark brown, markings faint.
- Sub-sp. *acerba* Hewitson 1863: ♂ Goram; type B.M. 2 ♂ Goram. 2 ♂ Manowalka.
- (d) As *acerba*, smaller, ♂ F 22 mm.: below, markings more distinct. ♂ more uniform above: ♀ like *superba*.
- Sub-sp. *leptines* Fruhstorfer 1914: ♂ Kei Is.: type B.M. 9 ♂, 6 ♀ Kei Is.
- (e) ♂ F 26 mm., plain purple-blue as *micale*, border $\frac{1}{2}$ mm., ♀ purple-blue with broad border. Below, typically variegated, conspicuous whitish area above cell H and about apex F and H: grades to the *acerba* form.
- Sub-sp. *ribbei* Röber 1886: ♂ Aru. 5 ♂, 2 ♀ "Amboina". 23 ♂, 14 ♀ Aru.
- (f) ♂ F 24 mm., above as *acerba*: below variegated as *ribbei*.
- Sub-sp. *selymbria* Fruhstorfer 1914: ♂ Waigou; type B.M. 10 ♂, 10 ♀ Waigou. 7 ♀ Misol.
- (g) ♂ F 27 mm., above as *acerba*: ♀ shining rather dark clear blue, border broad. Below, like *micale*, but unf the whitish areas on either side of the discal band are conspicuously streaked.
- Sub-sp. *bosnika* nov.: ♂ Schouten Is.; type B.M. 5 ♂, 5 ♀ Schouten Is.
- (h) ♂ F 27 mm., above as *acerba*. ♀ pale shining blue as *amytis*, border broad. Below, uniform as *micale*, markings broad and clearly defined.
- Sub-sp. *jona* nov.: ♂ Mioswar Is.: type B.M. 2 ♂, 6 ♀ Mioswar Is. 4 ♂, 4 ♀ Jobi. 1 ♀ Mefor Is.
- (i) ♂ F 26 mm., above as *acerba*. ♀ very variable, from rather dark purple-blue to pale blue, border broad. Below, varying from the pale *micale* type to the variegated *ribbei* form.
- Sub-sp. *novaeguineae* Strand 1912: ♂ Teba, New Guinea. 17 ♂, 21 ♀ W. New Guinea. Synonym *tebaensis* Strand 1921: ♂ Teba, New Guinea.
- (j) ♀ F 26 mm., bright shining light blue, as *amytis*, borders broad. Below, variegated or plain. ♂ above, as *acerba*.
- Sub-sp. *centra* nov.: ♀ Simbang, Central New Guinea; type B.M. 11 ♂, 9 ♀ Central New Guinea. 1 ♂ British New Guinea. 2 ♂ Dampier.
- (k) ♂ F 26 mm., uniform dark shining blue, border a thread: ♀ dark purple-blue, borders broad. Below, generally plain brown, markings rather faint, but the variegated *ribbei* form occurs rarely.
- Sub-sp. *micale* Boisduval 1853: ♂ New Guinea. 6 ♂, 1 ♀ Central New Guinea. 7 ♂, 8 ♀ British New Guinea. 2 ♂, 2 ♀ Yule Is. 3 ♂, 1 ♀ Vulcan Is. 10 ♂, 5 ♀ Fergusson Is. Synonym *androtion* Fruhstorfer 1914: ♂ Yule Is.; type B.M.
- (l) ♂ F 28 mm., like *micale*, but ♀ light blue with broad (8 mm.) dark border.
- Sub-sp. *cidona* Fruhstorfer 1914: ♀ Kiriwini; type B.M. 17 ♂, 7 ♀ Trobriand Is. 4 ♂, 4 ♀ Woodlark Is.
- (m) Small, ♂ F 24 mm. Above as *acerba*. Below as *micale*. ♀ as *amytis*.
- Sub-sp. *riuna* nov.: ♂ Riu, Sudest Is.; type B.M. 1 ♂, 2 ♀ St. Aignan. 2 ♂, 3 ♀ Sudest Is. 1 ♂, 9 ♀ Rossell Is.
- (n) ♂ F 26 mm., like *acerba*, uph shining light blue, turning conspicuously dark blue on outer half upf: border broader, $1\frac{1}{2}$ mm. at apex to 1 mm. at dorsum F and $\frac{1}{2}$ mm. on H. ♀ paler blue with dark veins, broad dark border. Below, typically variegated like *ribbei*, but grading to the uniform dark form of typical *micale*.

- Sub-sp. *amytis* Hewitson 1862 : ♂ Cape York ; type B.M. 14 ♂, 5 ♀ Cape York. 2 ♂, 2 ♀ Thursday Is.
 Synonym *cyronthe* Miskin 1890 : ♂ Cape York.
 (o) As *amytis*, but border 4 mm. at apex in ♂.
- Sub-sp. *amphis* Waterhouse 1942 : ♂ Mackay. 19 ♂, 27 ♀ Queensland (Kuranda, Cooktown, Mackay, Cedar Bay).
 (p) Small, ♂ F 25 mm. Above like *micale* : below mostly purple-brown, but the *ribbei*-like form occurs.
- Sub-sp. *amydon* Waterhouse 1942 : ♂ Murray Is. 7 ♂, 3 ♀ Darwin. 1 ♂ Groote Eylandt. 1 ♂ "Port Denison".
- 13 (12). Unh discal band quite regular : plain dark brown, markings faint, not variegated. End of clasp of genitalia expanded on the ventral side. Above and below very like *micale*.
- alkisthenes* Fruhstorfer 1914 : ♂ Central New Guinea ; type B.M. 2 ♂ Batchian. 2 ♂ Mefor Is. 2 ♀ Jobi. 2 ♀ Amberfron Is. 2 ♀ Mioswar Is. 9 ♂, 8 ♀ W. New Guinea. 15 ♂, 19 ♀ Central New Guinea. 3 ♂, 1 ♀ British New Guinea. 5 ♂, 2 ♀ Vulcan Is. 11 ♂, 4 ♀ Dampier Is.
- 14a (12b). Below not normal.
- 14 (15). Unh no markings internal to the pale postdiscal band. ♂ F 25 mm., shining light blue, turning to dark blue at apex and costa F, border $\frac{1}{2}$ mm. ♀ shining light blue, border broad. Unf cell spots may be absent, dark discal band in the middle of a broad pale apical area.
- aexone*. Two sub-species. Fig. Seitz. 147 g.
 (a) Unf discal band wider, $2\frac{1}{2}$ mm. : unh pale postdiscal band $1\frac{1}{2}$ mm.
- Sub-sp. *chrysoana* Fruhstorfer 1914 : ♂ Halmaheira. 2 ♂ Halmaheira.
 (b) Unf discal band $1\frac{1}{2}$ mm. Unh pale postdiscal band $2\frac{1}{2}$ mm.
- Sub-sp. *aexone* Hewitson 1863 : ♂ Waigou ; type B.M. "1 ♂ Celebes". 1 ♀ Buru. 1 ♂, 7 ♀ Aru. 2 ♂ Waigou. 6 ♂, 4 ♀ Schouten Is. 4 ♀ Mefor Is. 8 ♂, 7 ♀ W. New Guinea. 7 ♂, 9 ♀ Central New Guinea. 7 ♂, 6 ♀ British New Guinea. 11 ♂, 5 ♀ Fergusson Is. 11 ♂, 11 ♀ Trobriand Is. 1 ♂ Vulcan Is. 2 ♂ Woodlark Is. 1 ♂, 2 ♀ St. Aignan Is. 1 ♂ New Ireland.
- Synonyms *herana* Fruhstorfer 1914 : ♂ Fergusson Is. ; type B.M.
natanda Fruhstorfer 1914 : ♂ Fergusson Is. ; type B.M.
- 15 (14). Unh with central and basal broken white dots and dashes : no discal band. Otherwise as *aexone*. Fig. Seitz 150B b.
- sophrosyne* Grose-Smith 1889 : ♂ Guadalcanal ; type B.M. 1 ♂, 6 ♀ New Ireland. 2 ♂, 1 ♀ Guadalcanal.

I. VIHARA GROUP OF NARATHURA

- 1a (3a). H cell < half wing : long tail.

Vihara Sub-group

- 1 (2). Unf discal band more or less broken at vein 4.
- vihara*. Three sub-species. Fig. Corbet 55 and 75 g.
 (a) ♀ blue instead of purple.
- Sub-sp. *hirava* Corbet 1941 : ♀ Langkawi Is. ; type B.M. 1 ♂ Ataran. 4 ♂ Mergui. 1 ♂ Victoria Point. 1 ♂, 2 ♀ Langkawi Is.
 (b) ♂ F 24 mm., dark violet-blue, border 1 mm. : ♀ purple-blue, border 4 mm. Below, ochreous-brown, markings more macular than usual : with tornal metallic scaling.

Sub-sp. *vihara* Felder 1860: ♂ Malacca; type B.M. 8 ♂, 2 ♀ Malaya. 12 ♂, 4 ♀ Sumatra. 13 ♂, 4 ♀ Borneo. 1 ♂ Natuna Is.

(c) ♂ F 20 mm., border F $1\frac{1}{2}$ mm. Below, deeper purple-brown.

Sub-sp. *pagia* Corbet 1941: ♂ N. Pagi Is.; type B.M. Unique.

2 (1). Unf discal band unbroken.

barami. Three sub-species. Fig. Corbet 56 and 69 g.

(a) ♂ F 22 mm., bright shining blue, border very broad $7\frac{1}{2}$ mm. at apex and above cell mostly black. Below markings narrower and unf discal band centrally angled. Sexes alike.

Sub-sp. *woodii* Ollenbach 1921: ♂ Tavoy; type B.M. 2 ♂, 1 ♀ Ataran. 6 ♂, 2 ♀ Tavoy. 12 ♂, 10 ♀ Mergui. 1 ♂, 1 ♀ Victoria Point. 1 ♂, 1 ♀ Peninsular Siam.

(b) Intermediate between the Burmese and Bornean forms. ♀ purple.

Sub-sp. *penanga* Corbet 1941: ♂ Malaya; type B.M. 1 ♀ Victoria Point. 3 ♂, 3 ♀ Malaya.

(c) ♂ F 24 mm., purple-blue, border 5 mm. at apex to 3 mm. at tornus and on H: ♀ lighter, border rather broader. Below, ochreous-brown, markings rather darker than the ground.

Sub-sp. *barami* Bethune-Baker 1903: ♂ Borneo; type B.M. 13 ♂, 3 ♀ Borneo. 1 ♀ "Java".

3a (1a). H cell = half wing.

3b (8a). Unf discal band irregular, slightly broken at vein 4. ♂ upf dark border narrow.

Agaba Sub-group

3c (7). Tailed.

3d (6). Tail long, $2\frac{1}{2}$ mm.

3 (4a). Below, conspicuously whitened on all H. ♂ F 21 mm. ♂ dark purple-blue, border $\frac{1}{2}$ mm.: ♀ all brown. Fig. Ormiston 1921 (*Butterflies of Ceylon*).

ormistonii Riley 1920: ♂ Ceylon; type B.M. 2 ♂, 1 ♀ Ceylon.

4a (3). Below, purple-brown.

4 (5). Below, variegated with whitish patches unf and unh. ♂ F 20 mm., shining violet-blue, border 1 mm.: ♀ lighter blue, border 4 mm. Fig. Seitz 150c and Corbet 52 and 58 g.

agaba Hewitson 1862: ♂ "India" (recte Cochin China); type B.M. 1 ♀ "N. India". 5 ♂, 1 ♀ Karens. 5 ♂, 1 ♀ Rangoon. 19 ♂, 17 ♀ Ataran. 16 ♀, 12 ♀ Tavoy. 4 ♂, 3 ♀ Mergui. 1 ♀ Victoria Point. 7 ♂, 2 ♀ Siam. 3 ♂, 2 ♀ Cochin China. 1 ♀ Peninsular Siam. 1 ♂ Langkawi Is. 2 ♂ Sumatra.

5 (4). Below, uniform. ♂ F 19 mm., shining violet-blue, border $1\frac{1}{2}$ mm. ♀ lighter, border 5 to 3 mm. and a dark spot at end of cell. Clasp of genitalia bifid as in *buddha*. Fig. Corbet 68 g.

paralea Evans 1925: ♂ Manipur; type B.M. 2 ♂, 1 ♀ Assam. 2 ♂, 8 ♀ N. Shan States. 3 ♂, 1 ♀ S. Shan States. 1 ♂ Karens. 1 ♀ Ataran.

6 (3d). Tail short, 1 mm.

buddha. Two sub-species. Fig. Corbet (as *cooperi*) 58 and 71 g.

(a) ♂ 17 mm., shining violet-blue, border 1 mm.; ♀ lighter, border 6 mm. at apex to 2 mm. at dorsum, and dark spot at end of cell. Below brown, markings narrow: tornal metallic scaling conspicuous.

Sub-sp. *cooperi* Evans 1925: ♂ Mergui; type B.M. 1 ♀ N. Shan States. 1 ♂ Mergui. 1 ♂ Peninsular Siam. 1 ♂, 2 ♀ Malaya. 1 ♂, 3 ♀ Sumatra. 3 ♂ Banka. 1 ♀ Borneo. 1 ♀ Philippines. 1 ♂ Siberut.

Synonyms *gana* Corbet 1948: ♂ Malaya; type B.M.

siberuta Corbet 1941: ♂ Siberut; type B.M.

whiteheadi Corbet 1948: ♀ Borneo; type B.M.

(b) Smaller, ♂ F 18 mm., below purple, ternal metallic scaling reduced.

Sub-sp. *buddha* Bethune-Baker 1903: ♀ Java; type B.M. 1 ♀ Java.

Synonym *aleta* Piepens 1918: ♀ Java.

7 (3c). Not tailed.

arvina. Four sub-species. Fig. Corbet 64 and 93 g.

(a) Like *aboe*, but ♀ purple-blue with very broad borders, 5 mm. on F and on H, blue only in cell. Unf discal band more evenly curved.

Sub-sp. *ardea* Evans 1932: ♀ Assam; type B.M. 1 ♂, 9 ♀ Assam. 1 ♂ Hainan.

(b) ♂ F 17 to 23 mm., ♂ as *arvina*, ♀ rather pale blue, width of border very variable, from 3 to 6 mm. at apex. Below purple glazed.

Sub-sp. *aboe* De Nicéville: ♂ Ataran. 1 ♂, 9 ♀ Ataran. 16 ♂, 13 ♀ Tavoy. 1 ♂ Mergui. 1 ♀ Victoria Point. 3 ♀ Peninsular Siam.

Synonyms *adala* De Nicéville 1895: ♂ Ataran.

adulans De Nicéville 1895: ♀ Ataran. Both varieties.

(c) Below, plain brown, no purple gloss, with ternal metallic scaling H. ♂ as *arvina*; ♀ purple, border 6 mm. at apex to 1½ mm. at tornus.

Sub-sp. *adalitas* Corbet 1941: ♂ Malaya; type B.M. 1 ♂, 1 ♀ Malaya. 3 ♂, 9 ♀ Sumatra. 1 ♀ Borneo.

(d) ♂ shining dark blue, border a thread: ♀ shining pale blue, border 4 mm. on F, 5 mm. on H. Below, glazed purple-brown: no ternal metallic scaling on H.

Sub-sp. *arvina* Hewitson 1863: ♂ Java; type B.M. 2 ♂, 2 ♀ Java.

8a (3b). Unh discal band regular, no break at vein 4. ♂ Upf border broad, except in *labuana*.

Agelastus Sub-group

8b (10a). With long (2½ mm.) tail, white tipped.

8 (9). Below uniform, not variegated. ♂ F 22 mm. Sexes alike. Light blue, border 6 mm. to 3 mm. at dorsum, 6 mm. on H. Below rather pale brown, with ternal metallic scaling.

ocrida Hewitson 1869: ♂ Mindanao; type B.M. 1 ♂ Luzon. 3 ♂, 1 ♀ Mindanao. 6 ♂, 1 ♀ Mindoro.

9 (8). Below, variegated with whitish patches at apex F and on H, as in *alaconia*. Above, generally as *ocrida*.

alesia. Three sub-species. Fig. Corbet 54 and 67 g.

(a) Above, paler, softer blue than *alesia*, veins not darkened, border narrower: below, much paler and less variegated. Unf markings at apex obsolete.

Sub-sp. *sacharja* Fruhstorfer 1914: ♂ Annam; type B.M. 1 ♂ Manipur. 1 ♂, 1 ♀ Ataran. 1 ♂, 1 ♀ Siam. 1 ♂ Annam.

(b) ♂ F 22 mm. rather larger than *alesia*: below, darker, particularly above tornus H: unf markings at apex obsolete.

Sub-sp. *wimberleyi* De Nicéville 1887: ♀ Andamans. 1 ♂, 2 ♀ Andamans.

(c) ♂ F 20 mm., pale shining blue, border 8 mm. at apex to 6 mm. at tornus. Unf markings at apex conspicuous.

Sub-sp. *alesia* Felder 1865: ♀ Luzon. 7 ♂, 6 ♀ Mindanao.

10a (6b). Tail a tooth, not white-tipped.

10 (11a). Unh variegated, exactly as in *alesia*. Sexes alike.

alaconia. Four sub-species. Fig. Corbet 66 and 84 g.

(a) ♂ F 18 mm., pale shining blue, border 6 mm. to 3 mm. at dorsum.

Sub-sp. **aloana** Corbet 1941: ♀ Tavoy; type B.M. 3 ♂, 2 ♀ Karens. 5 ♂, 2 ♀ Ataran. 1 ♂, 5 ♀ Tavoy.

(b) Bright blue, not shining, border as in *aloana*.

Sub-sp. **media** nov.: ♂ Peninsular Siam; type B.M. 1 ♀ Mergui. 1 ♂, 1 ♀ Peninsular Siam. 1 ♀ Malaya.

(c) Above, dark purple with broad dark borders. Below, duller.

Sub-sp. **alaconia** Hewitson 1869: ♂ Borneo; type B.M. 9 ♂, 3 ♀ Borneo.

(d) Above, pale shining blue, border 7 mm. at apex, reaching to end of cell, 4 mm. at tornus and on H.

Sub-sp. **oberthuri** Staudinger 1889: Palawan. 3 ♂, 5 ♀ Palawan.

11a (10). Unh not variegated.

11 (12a). H tornus rounded, dorsum = costa, as in K (*Perimuta*) Group, but termen H is toothed. ♂ F 16 mm. bright shining blue, border 4 mm. at apex to $1\frac{1}{2}$ at dorsum F and mid H. ♀ rather paler and borders rather wider. Below as *agelastus*, tornal metallic scaling conspicuous. Fig. Corbet 68 and 86 g.

wildeyana Corbet 1941: ♂ Malaya; type B.M. 1 ♂ Langkawi Is. 6 ♂, 2 ♀ Malaya.

Synonym *havea* Corbet 1941: ♂ Langkawi Is.; type B.M.

12a (11). H tornus angled, dorsum > costa. ♂ F > 17 mm.

12 (13a). Below, markings conspicuously pale edged, ♂ upf border narrow, ♂ F 21 mm. mm. very dark purple-blue, border 2 mm. at apex to 1 mm. at dorsum and on H. ♀ lighter, borders broad and a dark spot at end of cell F. Unh with conspicuous tornal metallic scaling. Fig. Corbet 72 and 90 g.

labuana Bethune-Baker 1896: ♂ Labuan. 3 ♂, 1 ♀ S. Burma, Ataran to Victoria Point. 1 ♂ Sumatra. 1 ♀ N. Pagi Is. 7 ♂ Borneo.

Synonym *etuna* Corbet 1941: ♀ N. Pagi Is.; type B.M.

13a (12). Below, markings inconspicuously pale edged. ♂ upf with broad dark border.

13b (17a). F termen evenly convex throughout.

13c (16). Unh discal band broken at vein 4 as usual.

13d (15). H tooth at end of vein 2 inconspicuous. Unh no metallic scaling.

13 (14). Below, pinkish-grey. ♂ F 18 mm., violet-blue, border F 5 mm. at apex to 2 mm. at tornus and on H. Fig. *Lep. Ind.*: Corbet 91 g. Genitalia distinct from its allies.

aeeta De Nicéville 1893: ♂ Ataran. 1 ♂ Manipur. 1 ♂ N. Chin Hills. 6 ♂, 4 ♀ Ataran. 1 ♂ S. Annam.

14 (13). Below, grey-brown, otherwise as *aeeta*. Fig. *Lep. Ind.* and Corbet 87 g. ♀ much lighter blue.

zeta Moore 1877: ♀ Andaman Is.; type B.M. 8 ♂, 4 ♀ Andaman Is. 2 ♂, 2 ♀ "Borneo" ex coll. Adams, probably from Andaman Is.

Synonym *voona* Moore 1884; ♂ Andaman Is.

15 (13d). H tooth at end of vein 2 conspicuous $\frac{1}{2}$ to $1\frac{1}{2}$ mm., but not white-tipped. Unh with metallic scaling.

arsentius. Two sub-species.

(a) ♂ F 20 mm., dark purple-blue, ♀ lighter and with dark spot at end of cell, border 5 mm. at apex to 2 mm. elsewhere. Tail short $\frac{1}{2}$ mm.

Sub-sp. **arsentius** Felder 1867: ♂ Luzon: figured. 2 ♂, 1 ♀ Luzon.

(b) Tail $1\frac{1}{2}$ mm. Unh metallic scaling more profuse.

Sub-sp. **everetti** nov.: ♂ Mindoro: Everett; type B.M. 6 ♂, 4 ♀ Mindoro.

16 (13c). Unh discal band not broken at vein 4 : with or without metallic scaling.

agelastus. Two sub-species. Fig. Corbet 70 and 89 g.

(a) ♂ F 21 mm., purple-blue, border 6 mm. at apex to 1½ mm. at dorsum and 1 mm. on H : ♀ bluer. Very variable in respect of width of border and presence or absence of metallic scaling unh. Below ochreous-brown.

Sub-sp. *perissa* Doherty 1889 : ♂ Tavoy. 1 ♀ Pegu Yoma. 23 ♂, 14 ♀ Karens. 17 ♂, 10 ♀ Ataran. 10 ♂, 6 ♀ Tavoy. 9 ♂, 8 ♀ Mergui. 3 ♂ Victoria Point. 1 ♂, 2 ♀ Peninsular Siam.

(b) Below, dull plain brown, markings fainter, metallic scaling conspicuous.

Sub-sp. *agelastus* Hewitson 1862 : ♂ "India" ; type B.M. 3 ♂, 2 ♀ Malaya.

17a (13b). F termen concave before a pointed apex. Unh no metallic scaling. A link to J. (*Rama*) Group.

17 (18). F termen straight. ♂ F 22 mm., purple, border 6 mm. at apex to 4 mm. at dorsum and on H : ♀ blue with broader borders. Below brown with a faint purple wash.

asopia Hewitson 1869 : ♂ Moulmein ; type B.M. Fig. Corbet 71 and 88 g. 15 ♂, 15 ♀ Assam. 4 ♂, 8 ♀ N. Burma to S. Shan States. 11 ♂, 7 ♀ Ataran. 4 ♂, 11 ♀ Tavoy.

18 (17). F termen convex.

asinarus. Two sub-species. Fig. Seitz 150 g as *tounguva*.

(a) ♂ F 21 mm., rather dark shining blue, border 7 mm. at apex to 3 mm. at dorsum and 2 mm. on H. Below, darker and may have a faint purple gloss. ♀ blue, border as ♂.

Sub-sp. *tounguva* Grose-Smith 1887 : ♀ Toungoo ; type B.M. 2 ♀ Karens. 3 ♀ Bassein. 16 ♂, 11 ♀ Rangoon. 1 ♂ "Andamans".

(b) ♂ F 19 mm., borders narrower : below, paler.

Sub-sp. *asinarus* Felder 1865 : ♂ Cochinchina ; type B.M. 5 ♂, 1 ♀ Ataran. 1 ♀ Tavoy. 4 ♂, 1 ♀ Siam. 2 ♂, 4 ♀ Indo-China.

Synonym *enoma* Corbet 1946 : ♀ S. Annam ; type B.M.

J. RAMA GROUP OF NARATHURA

1a (3a). H not tailed.

1 (2). Unh discal spots in spaces 4, 5 mid termen and end-cell spot.

paramuta. Two sub-species. Fig. Corbet 76 and 97 g.

(a) ♂ F 17 mm., purple-blue, border 2½ mm. : ♀ paler, border broader. Below, pale brown, markings faint.

Sub-sp. *paramuta* De Nicéville 1883 : ♂ Sikkim. 50 ♂, 14 ♀ Sikkim. 1 ♂ Nepal. 24 ♂, 16 ♀ Assam. 1 ♀ N. Burma. 20 ♂, 6 ♀ N. Shan States. 1 ♂, 1 ♀ S. Shan States. 3 ♂, 6 ♀ Karens. 1 ♂ Siam. 1 ♀ Szechwan. 1 ♂ Canton.

Synonym *newara* Moore 1884 : ♂ Nepal ; type B.M.

(b) Larger, ♂ F 18 mm., upf borders 4 mm. Below, rather darker.

Sub-sp. *horishana* Matsumura 1910 : Formosa. 8 ♂, 6 ♀ Formosa.

2 (1). Unh discal spots in spaces 4, 5 much nearer to end-cell spot than to termen. ♂ F 16 to 19 mm., dark border 3 mm. Below markings vary from sharply defined as in *dodonaea* to dull as in *rama*. Fig. Seitz, vol. 1.

japonica Murray 1875 : ♂ Japan. 32 ♂, 32 ♀ Japan. 1 ♀ Liu Kiu Is. 3 ♂, 3 ♀ Korea. 2 ♀ Formosa. 1 ♂, 1 ♀ "China".

Synonym *kotoshona* Sonan 1947 : Formosa.

3a (1a). H tailed.

3b (5a). H not conspicuously lobed at tornus.

3 (4). Below, purple-brown.

rama. Two sub-species. Fig. Corbet 94 g : Seitz 150B d. ♂ F 21 mm., shining dark purple-blue, border 1½ to 3 mm. : ♀ bluer and borders broader. Below, rather pale brown with a glossy sheen, markings faint.

Sub-sp. *rama* Kollar 1842: Himalayas. 5 ♂, 7 ♀ Central China. 1 ♂, 1 ♀ Foochow. 10 ♂, 1 ♀ Szechwan. 24 ♂, 20 ♀ Kashmir to Nepal. 8 ♂, 8 ♀ Sikkim.

Synonyms *querceti* Moore 1857: N. India; type B.M.

violacea Röber 1886: E. Indies.

(b) ♂ above, bluer and more shining, border narrower $\frac{1}{2}$ to 2 mm. Below, darker, more conspicuously purple washed.

Sub-sp. *ramosa* Evans 1925: ♂ N. Shan States; type B.M. 9 ♂, 9 ♀ Assam. 2 ♂, 2 ♀ N. Burma. 10 ♂, 8 ♀ N. Shan. States. 20 ♂, 6 ♀ S. Shan States. 7 ♂, 1 ♀ Ataran.

4 (3). Below, grey. ♂ F 20 mm. Sexes alike. Above, blue with broad border, 6 mm. at apex, 5 at dorsum F, 4 mm. on H. Termen F very crenulate. Fig. Seitz 150f and Corbet 95 g.

dodonaea Moore 1857: ♂ N. India; type B.M. 3 ♂, 3 ♀ Afghanistan. 1 ♂, 5 ♀ Chitral. 43 ♂, 55 ♀ Kashmir to Kumaon. 2 ♀ Sikkim.

5a (3b). H conspicuously lobed at tornus: dorsum concave.

5 (6). Unf discal band unbroken. F termen conspicuously concave. ♀ F 16 mm. Above purple-blue, border 4 mm. mid-termen F, 3 mm. on H. Unf brown, paler and purple washed at apex, markings faint: discal band continued into space 1 b: costal spot in space 10. Unh reddish-brown, with a purple wash: markings broad and black: discal spot in space 6 separated from the spot in space 5 and overlaps the end-cell spot.

curiosa nov.: ♀ Dokyong La, Bhutan 10,000 ft.: 25th March, 1927: F. M. Bailey. Unique.

6 (5). Unf discal band very broken and irregular. F termen straight. Sexes alike. ♂ F 18 mm.: blue with very broad borders: below, reddish-brown, with faint purple gloss and dark markings. Fig. *Lep. Ind.*: Corbet 96 g.

comica De Nicéville 1900: ♂ near Bhamo, N. Burma. 1 ♂, 1 ♀ Manipur. 2 ♂, 1 ♀ S. Shan States. 1 ♀ Siam (Tukdah).

Synonym *learmondii* Tytler 1940: ♂ S. Shan States: type B.M.

K. PERIMUTA GROUP OF NARATHURA

1a (3a). Unf discal band broad, 2 mm.

1 (2). Unh with central yellow area.

perimuta. Two sub-species. Fig. Corbet 75 and 66 g.

(a) F 17 mm., dark shining blue, border $1\frac{1}{2}$ mm.: ♀ bright blue, border 5 mm.

Sub-sp. *perimuta* Moore 1857: ♂ Sylhet; type B.M. 15 ♂, 11 ♀ Sikkim. 23 ♂, 23 ♀ Assam. 36 ♂, 24 ♀ N. Burma to Tavoy. 2 ♂ Siam.

(b) ♂ bright shining metallic blue: ♀ border 3 mm.

Sub-sp. *regina* Corbet 1941: to replace *regia*. 25 ♂, 21 ♀ Mergui. 3 ♂, 2 ♀ Victoria Point. 5 ♂, 4 ♀ Peninsular Siam. 1 ♀ Malaya.

Synonyms *regia* Evans 1925: ♂ Mergui; type B.M. Homonym.

linta Corbet 1941: ♀ Malaya; type B.M.

2 (1). Unh no central yellow area. Sexes alike.

epimete. Three sub-species. Fig. Corbet 65 and 92 g.

(a) ♂ F 17 mm., bright shining blue, border 6 mm. at apex to 2 mm. at dorsum: on H, only blue in cell. Below, pale purple-brown, variegated with white at apex F and H.

Sub-sp. *duessa* Doherty 1889: ♂ Tavoy; type B.M. 12 ♂, 6 ♀ Ataran. 4 ♂ Tavoy. 3 ♂ Mergui. 1 ♀ Victoria Point, S. Burma.

(b) Below, darker uniform brown, with a purple wash.

Sub-sp. *suedas* Corbet 1941: ♂ Malaya; type B.M. 1 ♂ Malaya.

(c) ♂ F 18 mm., purple, border 5 mm. at apex to 3 mm. at dorsum. Below, light brown with faint purple wash.

Sub-sp. *epimete* Staudinger 1889: ♂ Palawan. 2 ♂ Borneo. 1 ♂, 1 ♀ Palawan.

- 3a (1a). Unf discal band narrow, 1 mm.
 3b (6a). Unh no tornal metallic scaling.
 3 (4a). Below, markings conspicuous. ♂ F 17 mm. shining blue, border 5 mm. at apex to 2 mm. at dorsum and on H. Below, markings small. Fig. Corbet 67 and 85 g.
cardoni Corbet 1941: ♂ Malaya; type B.M. Unique.
- 4a (3). Below, markings faint.
 4 (5). Unh discal band completely broken at vein 2. ♂ F 23 mm., dark violet-blue, no border.
inornata. Two sub-species. Fig. Corbet 73 and 63 g, 64 g.
 (a) ♀ paler purple-blue, border 3 mm. at apex to $\frac{1}{2}$ mm. at dorsum and on H. Unf discal band narrow, sinuous.
 Sub-sp. **inornata** Felder 1860: ♂ Malaya; type B.M. 2 ♀ Peninsular Siam. 3 ♂, 7 ♀ Malaya. 4 ♂, 5 ♀ Sumatra. 1 ♀ "Philippines".
 Synonym **brahma** Bethune-Baker 1897: ♂ Perak; type B.M. A small specimen, ♂ F 19 mm.
 (b) ♀ purple, border 8 mm. at apex to 5 at dorsum: on H 5 mm. and the veins darkened.
 Sub-sp. **empesta** Corbet 1941: ♂ Borneo; type B.M. 3 ♂, 2 ♀ Borneo.
- 5 (4). Unh discal band overlapping at vein 2. ♂ F 16 mm. very dark violet-blue, border 3 mm. at apex to 2 mm. mid-termen and 4 mm. at dorsum. ♀ dark purple-blue to just beyond end cell F and only in cell H. Fig. Seitz 148f.
davaona Semper 1890: ♂ Mindanao. 26 ♂, 11 ♀ Mindanao.
- 6a (3b). Unh with tornal metallic scaling. Below, spots faint.
 6 (7). Unh discal band completely broken at vein 2.
antimuta. Three sub-species. Fig. Corbet 74 and 65 g.
 (a) ♀ bluer.
 Sub-sp. **tana** Corbet 1941: ♂ Ataran; type B.M. 1 ♂, 3 ♀ Karens. 9 ♂, 9 ♀ Ataran. 23 ♂, 24 ♀ Tavoy. 9 ♂, 5 ♀ Mergui. 3 ♂, 1 ♀ Victoria Point.
 (b) ♂ F 16 mm., dark violet-blue, border $\frac{1}{2}$ mm.: ♀ purple-blue, border 5 mm. at apex to 3 mm. at dorsum, 2 mm. on H where the veins are black.
 Sub-sp. **antimuta** Felder 1865: ♂ Malacca; type B.M. 2 ♂ Peninsular Siam. 26 ♂, 14 ♀ Malaya. 10 ♂, 4 ♀ Sumatra. 1 ♂, 1 ♀ Nias. 1 ♂ Natuna Is.
 Synonym **davisonii** De Nicéville 1890: ♂ Singapore.
 (c) ♀ more purple than blue.
 Sub-sp. **timana** Corbet 1941: ♂ Borneo; type B.M. 7 ♂, 6 ♀ Banka. 30 ♂, 13 ♀ Borneo. 4 ♂ "Java" (not in *Rhop. Java*).
- 7 (6). Unh discal band overlapping at vein 2.
avatha. Two sub-species. Fig. Corbet 26 and 28 g.
 (a) ♂ F 16 mm., dark violet blue, border $1\frac{1}{2}$ mm.: ♀ shining purple, border as in *antimuta*, but broader on H.
 Sub-sp. **avatha** De Nicéville 1896: ♂ Sumatra. 6 ♂ Malaya. 4 ♂, 1 ♀ Sumatra.
 (b) ♂ F 14 mm. Below, markings not faint, small and macular: unf discal band slightly broken at vein 4: unh cilia white-tipped at end of vein 2.
 Sub-sp. **lana nov.**: ♂ Mindanao: A. E. Wileman; type B.M. Unique.

L. FULLA GROUP OF NARATHURA

- 1a (3a). Unh markings complete.
 1 (2). Unh discal band completely broken at vein 6.
acron. Two sub-species. Fig. Seitz 150 g.

(a) ♂ F 23 mm., brilliant shining blue, turning darker at apex F, border $\frac{1}{2}$ mm. ♀ similar, but apex broadly black, 9 mm. to 6 at dorsum: H only blue in cell. Below, brown with conspicuously white-edged markings.

Sub-sp. *acron* Hewitson 1862: ♂ Batchian; type B.M. 5 ♂, 3 ♀ Halmaheira. 8 ♂, 2 ♀ Batchian.

(b) ♂ similar. ♀ shining light blue, border 7 mm. at apex to 1 mm. at dorsum and on H. Below, white with pale brown markings. Fig. Seitz 149 g.

Sub-sp. *azenia* Hewitson 1863: ♂ Waigou; type B.M. 24 ♂, 4 ♀ Obi. 1 ♂, 1 ♀ Ceram. 1 ♂ Aru. 2 ♂, 1 ♀ Misol. 10 ♂, 1 ♀ Waigou. 1 ♂, 1 ♀ Jobi. 20 ♂, 12 ♀ W. New Guinea. 8 ♂, 2 ♀ Central New Guinea. 16 ♂, 16 ♀ British New Guinea.

2 (1). Unh discal band not completely broken at vein 6.

admete. Three sub-species. Fig. Seitz 149 c.

(a) ♂ F 20 to 24 mm., dark blue, border 2 mm. at apex to 1 mm. elsewhere. ♀ purple-blue with broad borders. Unh dark brown, discal band outwardly more or less white-edged.

Sub-sp. *admete* Hewitson 1863: ♂ Ceram; type B.M. 14 ♂, 14 ♀ Halmaheira. 2 ♂ Batchian. 11 ♂, 6 ♀ Obi. 7 ♂, 4 ♀ Ceram. 4 ♂ Amboina.

(b) ♀ blue or purple. Unh purple-brown, typically with a broad white band exterior to the discal band, but, particularly in ♀, this band may be reduced or absent: no trace of metallic scaling.

Sub-sp. *eucolpis* Kirsch 1877: ♂ Jobi. 2 ♂, 1 ♀ Misol. 17 ♂, 5 ♀ Waigou. 5 ♂, 5 ♀ Jobi. 14 ♂, 14 ♀ W. New Guinea. 24 ♂, 15 ♀ British New Guinea. 2 ♂ Goodenough Is. 6 ♂, 4 ♀ Rossell. 13 ♂, 4 ♀ Sudest Is.

Synonym *waigeoensis* Bethune-Baker 1903: ♂ Waigou; type B.M.

(c) Louisiade specimens generally are referable to *eucolpis*, but there is also a sub-specifically different form. ♂ 18 mm., much brighter, shining blue. ♀ very pale shining blue, border as in *eucolpis*. Below, much paler grey, no purple wash.

Sub-sp. *sudesta* nov.: ♂ Sudest Is.; type B.M. 1 ♂ Rossell Is. 5 ♂, 4 ♀ Sudest Is.

3a (1a). Unh markings incomplete.

3 (4). Below, white. ♂ F 20 mm., rather pale blue, border 1 mm. ♀ white, blue suffusion at darkened bases, border F 5 mm. Below, well marked post-discal band, interior to which small dark markings of the usual type may be more or less present or entirely absent.

disparilis Felder 1860: ♂ Amboina; type B.M.; figured in *Reise Novara*. 3 ♂, 1 ♀ Amboina. Synonym *courvoisieri* Ribbe 1901: ♂ Ceram.

4 (3). Below, not white: generally no markings interior to the discal band on either wing.

fulla. Seven sub-species. Fig. Corbet 90 and 113 g.

(a) ♂ F 19 mm., bright shining blue, border at apex 2 mm., elsewhere $\frac{1}{2}$ mm. ♀ pale shining blue, border 7 mm. at apex, 1 $\frac{1}{2}$ mm. at dorsum, 1 mm. on H. Below dull pale brown, markings narrow and faint.

Sub-sp. *andamanica* Wood-Mason & De Nicéville 1881: ♂ Andaman Is. 19 ♂, 19 ♀ Andaman Is.

Synonym *subfasciata* Moore 1881: ♂ Andaman Is.: type B.M.

(b) Below, more ochreous brown., ♂ border F narrower.

Sub-sp. *ignara* Riley & Godfrey 1921: ♂ N. Siam; type B.M. 6 ♂, 1 ♀ N. Shan States. 6 ♂, 1 ♀ Ataran. 1 ♂ Tavoy. 6 ♂, 4 ♀ Mergui. 8 ♂ Victoria Point, S. Burma. 5 ♂ Siam.

(c) ♂ more purple-blue, border a thread: termen more rounded. ♀ purple with broader borders. Below, dull pale brown, discal band H much broader.

Sub-sp. *intaca* Corbet 1941: ♂ Borneo: type B.M. 1 ♂ Peninsular Siam. 5 ♂, 2 ♀ Malaya. 2 ♂, 1 ♀ Borneo.

- (d) ♂ F 16 mm., dark shining blue, border 1 mm. : ♀ purple, border 5 mm. at apex to 1 mm. at dorsum. Below, like *intaca*, but unh with a subtornal black spot in space 2 crowned with metallic scales and a similar vestigial spot at the tornus.
Sub-sp. *santa* nov. : ♂ Luzon; type B.M. 3 ♂, 1 ♀ Luzon.
- (e) ♂ F 19 to 23 mm., very dark blue, border $\frac{1}{2}$ mm. ♀ purple with broad border F. Below, grey-brown : unh with whitish postdiscal band and tornal black spots crowned white and with some metallic scaling.
Sub-sp. *canulia* Hewitson 1869 : ♂ "Philippines", recte Halmahera; type B.M. 13 ♂, 5 ♀ Halmahera. 1 ♂, 1 ♀ Ternate. 3 ♂ Obi.
Synonym *sosias* Fruhstorfer 1914 : ♂ Obi; type B.M.
- (f) ♂ 19 mm., bright shining blue, border 1 mm. at apex, $\frac{1}{2}$ mm. elsewhere. ♀ bluer, border 7 mm. at apex, 2 mm. at dorsum and 1 mm. on H. Below, ochreous-brown, very like *ignara*, but with faint whitish postdiscal and submarginal bands on H.
Sub-sp. *fulla* Hewitson 1862 : ♂ Buru; type B.M. 6 ♂, 2 ♀ Amboina. 17 ♂, 2 ♀ Buru.
Synonym *prasia* Fruhstorfer 1914 : Amboina; type B.M.
- (g) Above, as *fulla*, ♀ bluer. Below, discal bands better marked and very broad on unh, 4 mm. All unh and apical part of unf more or less reddened and purple glazed.
Sub-sp. *babsi* Joicey & Talbot 1917 : ♂ Waigou; type B.M. 6 ♂, 1 ♀ Misol. ♂ 6, 2 ♀ Waigou. 2 ♂, 3 ♀ British New Guinea. 1 ♂ Sudest Is.

M. GENUS *AUREA* gen. nov.

- 1a (4). Below, markings of the *Narathura* type : unf with 3 cell spots and a discal band.
1 (2a). Below, plain brown, markings inconspicuous. ♂ F 20 mm., brilliant shining green, border a thread at apex increasing to $\frac{1}{2}$ to 1 $\frac{1}{2}$ mm. at dorsum, 5 mm. on H. ♀ blue or purple with broad borders. Termen F convex in ♂. Fig. Corbet 60 and 73 g.
aurea Hewitson 1862. ♂ Borneo; type B.M. 9 ♂, 16 ♀ Malaya. 4 ♂, 3 ♀ Sumatra. 17 ♂, 8 ♀ Borneo.
Synonyms *borneensis* Bethune-Baker 1896 : ♂ Borneo.
tembaga Moulton 1911 : ♂ Borneo; type B.M.
- 2a (1). Below, purple glazed, markings conspicuous.
2 (3). ♂ above, as *aurea*, but border F a thread and on H 3 mm., but the green colour reaches termen in space 6 : termen F straight. ♀ above, purple-blue, like *aurea*.
trogon Distant 1884 : ♂ Malaya. Fig. Corbet 61 and 74 g. 7 ♂, 12 ♀ Malaya. 3 ♂, 4 ♀ Sumatra. 1 ♂, 1 ♀ Boneo.
Synonym *rajah* Moulton 1911 : ♀ Sarawak; type B.M.
- 3 (2). ♂ above, as *aurea*, but border H broader, 6 mm. : no basal bluish reflection as is conspicuous in *trogon* and faint in *aurea*. Below, as *trogon*.
stinga nov. : ♂ Johore; type B.M. 2 ♂ Malaya.
- 4 (1a). Below, markings abnormal : greyish-brown : unf dark brown bar at end of cell and a narrow, sinuous discal band : unh tornal half of wing darkened, the usual basal and central spots very small, end-cell spot continued to costa, discal band begins at vein 6 and is not broken at vein 2. ♂ F 19 mm., brilliant shining green, no dark border, but mid-termen to tornus on H the green colour changes to violet-blue for a width of 2 $\frac{1}{2}$ mm. ♀ purple with broad dark borders. Fig. Corbet 91 and 114 g.
caeca Hewitson 1863 : ♂ Borneo; type B.M. 2 ♂, 1 ♀ Borneo. Hewitson's type is an aberrant and stained specimen. There is a ♂ from Malaya in coll. Stubbs and a ♂ from Sumatra in coll. Nieuwenhuis of Rotterdam.

N. GENUS *ARHOPALA* Boisduval 1832

1a (3a). Unf discal band macular and angled at vein 6.

1 (2). Unh no white area mid dorsum.

thamyras. Five sub-species. Fig. Aurivillius 1882: *Kong. Svenska Vet.-Ak. Handlingar* 19/5: 109, Pl. 1, fig. 2.

(a) Below striped, markings concolorous with ground.

Sub-sp. *anthore* Hewitson 1862: ♂ Batchian; type B.M. 22 ♂, 6 ♀ Halmaheira. 16 ♂, 16 ♀ Batchian. 2 ♂, 2 ♀ Ternate. 16 ♂, 16 ♀ Obi.

Synonym *potidaea* Fruhstorfer 1913: ♂ Obi; type B.M.

(b) Intermediate between *anthore* and *phryxus*: markings unh rather darker than ground, rather elongate tending to be striped. ♂ F 23 mm., brilliant shining light blue, turning violet about apex F, border $\frac{3}{4}$ mm. ♀ paler blue, border 6 mm. at apex, decreasing to 2 mm. at dorsum and 1 mm. on H: much narrower than in *anthore*.

Sub-sp. *thamyras* Linnaeus 1758: ♂ Indies (recte Amboina). 19 ♂, 12 ♀ Amboina. 2 ♀ Saparoea. 10 ♂, 2 ♀ Buru. 5 ♂, 6 ♀ Ceram.

Synonyms *helius* Cramer 1779: ♂ Surinam (recte Amboina).

esra Herbst 1800. *helus* Godart 1823: to replace *helius*.

carolina Holland 1900: ♂ Buru; paratype in B.M.

tamyras Bethune-Baker 1903: mis-spelling.

(c) Unh outwardly whitened: otherwise as *phryxus*.

Sub-sp. *anthelius* Staudinger 1888: ♂ Aru. 2 ♂, 1 ♀ Key Is. 6 ♂, 6 ♀ Aru. 18 ♂, 4 ♀ Misol.

Synonym *calauveia* Fruhstorfer 1911: ♂ Misol; type B.M.

(d) Unh markings fully macular and conspicuously darker than the ground: uniform. Very variable.

Sub-sp. *phryxus* Boisduval 1832: ♂ New Guinea. 19 ♂, 6 ♀ Waigou. 5 ♂, 5 ♀ Schouten Is. 6 ♂, 5 ♀ Mefor. 6 ♂, 1 ♀ Jobi. 10 ♂, 6 ♀ Mioswar Is. 18 ♂, 18 ♀ W. New Guinea. 5 ♂, 5 ♀ Central New Guinea. 13 ♂, 13 ♀ British New Guinea. 1 ♂ Salawatti. 3 ♂ Vulcan Is. 6 ♂, 4 ♀ Dampier. 5 ♂ Rook Is. 10 ♂, 1 ♀ Trobriand Is. 11 ♂, 11 ♀ Fergusson Is. 7 ♂, 7 ♀ Woodlark Is. 8 ♂, 4 ♀ St. Aignan Is. 11 ♂, 1 ♀ Sudest Is. 7 ♂, 5 ♀ Rossell Is. 12 ♂, 2 ♀ Admiralty Is. 56 ♂, 29 ♀ Solomon Is. (Ugi, Guadalcanal, Tugela, Bougainville Rendova, Ulava, Alu, Choiseul, Florida, New Georgia, Vella Lavella, Ysabel, Kulanbanganre, Guizo, Tulayi, Niasam).

Synonyms *sophax* Matthew 1887: ♂ Ugi; type B.M.

latimarginata Strand 1912: ♂ Teba, New Guinea.

interniplaga Strand 1912: ♂ Waigou.

teuthrone Fruhstorfer 1913: ♂ Eilanden R., New Guinea; type B.M.

zelea Fruhstorfer 1913: ♂ Fergusson Is.; type B.M.

(e) Below, grey and markings much smaller.

Sub-sp. *minnetta* Butler 1882: ♂ Duke of York Is.; type B.M. 9 ♂, 5 ♀ New Hannover. 7 ♂, 4 ♀ New Ireland. 3 ♂, 6 ♀ Witu Is. 1 ♂, 1 ♀ Duke of York Is. 9 ♂, 9 ♀ New Britain. 5 ♀ St. Mathais. 11 ♂, 5 ♀ Squally Is.

2 (1). Unh with a conspicuous white area mid-dorsum extending to vein 1b. ♂ F 18 mm.: above as *thamyras*; below, much darker than any *thamyras* form: markings all macular, scarcely darker than the ground, but conspicuously white-edged.

helianthes Grose-Smith 1902: ♂ Milne Bay: figured; type B.M. 3 ♂ Waigou. 5 ♂ W. New Guinea. 5 ♂, 1 ♀ British New Guinea.

3a (1a). Unf discal band not macular, nor angled. Unh tornal area broadly darkened. ♀ above, as *thamyras*.

3b (5). Unh discal and central markings macular.

- 3 (4). Unh no white area mid-dorsum. ♂ F 22 mm., as *thamyras*, but apical half F much darker blue and borders broader, $3\frac{1}{2}$ mm. at apex to 1 mm. at dorsum and on H. Unh like *thamyras phryxus*.
- arta nov.*: ♂ Owgarrar, Upper Aroa R., British New Guinea: A. S. Meek; type B.M. 1 ♀ Jobi Is. 2 ♂, 2 ♀ W. New Guinea. 3 ♂, 5 ♀ British New Guinea.
- 4 (3). Unh with white area mid-dorsum, as in *helianthes*. Appears to be a species intermediate between *arta* and *axiothea*. ♂ F 21 mm., above as *arta*. Unf central and end-cell spots connected by a dark band as in *axiothea*. Unh markings as in *arta*, but tornal area much darker.
- axina nov.*: ♂ Wangaar River, 15 miles from coast, W. New Guinea, 600 ft.: January 1921: C. & J. Pratt; type B.M. 1 ♂, 1 ♀ W. New Guinea. 5 ♂ British New Guinea.
- 5 (3b). Unh discal and central markings conjoined to continuous bands on a white ground. ♂ F 22 mm., above like *arta*. Unf white, central and end-cell spots continued as bands to costa, where they are conjoined. Unh white area mid-dorsum is extended to the base. Fig. Seitz 146B b.
- axiothea* Hewitson 1862: ♂ New Guinea; type B.M. 1 ♂ Misol. 24 ♂, 8 ♀ Jobi. 1 ♂, 1 ♀ New Guinea.
- Synonym *strophe* Grose-Smith 1877: ♀ Kapaur; type B.M.

O. Genus *PANCHALA* Moore 1882

- 1a (3a). Not tailed. Sexes alike.
- 1 (2). Unf markings conspicuously darker than ground. F conspicuously falcate and H angled at apex.
- ganesa*. Five sub-species. Fig. Seitz 147f and Corbet 98 g.
- (a) ♂ F 15 mm., blue with broad dark border F. Unh whitish, markings faint on a white ground. Upf white-flanked black spot about end of cell.
- Sub-sp. *ganesa* Moore 1857: N. India. 41 ♂, 41 ♀ N. India (Chitral to Kumaon). 1 ♂ Sikkim.
- (b) Below, bases rather pale purple-brown: markings F more prominent, not being overlaid whitish: H markings prominent.
- Sub-sp. *watsoni* 1912: ♀ Chin Hills; type B.M. 4 ♂, 4 ♀ Assam. 1 ♀ Chin Hills. 1 ♀ S. Shan States.
- (c) Upf black spot at end cell not white flanked, at least in ♂.
- Sub-sp. *seminigra* Leech 1890: ♂ Chang Yang; type B.M. 1 ♂, 10 ♀ W. China. 1 ♂, 1 ♀ Chang Yang. 2 ♂, 2 ♀ Hainan.
- (d) Upf no black spot at end of cell; blue colouring as extensive as in *seminigra*.
- Sub-sp. *formosana* Kato 1930: Formosa. None in B.M.
- (e) Blue colouring much restricted, dusker: vestigial on H.
- Sub-sp. *loomisi* Pryer 1886: ♂ Kanozan. 8 ♂, 5 ♀ Japan.
- 2 (1). Unf and unh marking faint on the grey ground. Wings rounded. F 15 mm.: powdery blue, border 5 mm. at apex to 2 mm. at dorsum: 1 mm. on H, where all space 6 is darkened and the veins are dark on both wings. Unf discal band broken at vein 4, not continued below vein 2, reaches vein 10 and there are faint costal spots in spaces 10 and 11. Unh very like *ganesa*, but with two tiny submarginal black dots as in *para-ganesa*: no metallic scaling.
- weelii* Piepers 1918: "♂" Java; type Leiden Mus., the Director of which kindly sent me the type for examination. It was found to have the long, slender, tapered form of ovipositor characteristic of the *Ganesa* Group. None in B.M.

3a (1a). Tailed.

3b (6a). Below, markings darker than the ground.

3 (4a). Unf discal spots in spaces 2, 3, 4 in line and inwardly flanked by an equally broad whitish band as in *ganesa*.

paraganesa. Four sub-species. Fig. Seitz 147*b* (badly).

(a) ♂ F 15 mm., sexes alike. Dry season form almost exactly like *ganesa*: wet season form has the blue colour restricted, particularly on H, where it may be confined to the cell.

Sub-sp. **paraganesa** De Nicéville 1882: Sikkim. 2 ♂ Kumaon. 3 ♀ Nepal. 31 ♂, 8 ♀ Sikkim.

(b) The type pertains to the wet season form, where on upf the powdered blue colouring only extends to just beyond the end of the cell on F and is absent on H. Dry season specimens are more like *paraganesa*. Sexes alike.

Sub-sp. **zephyretta** Doherty 1891: ♂ Assam; type B.M. 29 ♂, 8 ♀ Assam. 1 ♀ Chin Hills. 9 ♂, 13 ♀ N. Shan States. 6 ♂, 14 ♀ S. Shan States. 1 ♂ Karens. 1 ♂ Ataran. 1 ♂, 1 ♀ W. Siam.

(c) ♂ above, bright blue colouring extensive, dark border F 4 mm. at apex to 2 mm. at dorsum, like *ammonides*. ♀ as *paraganesa*.

Sub-sp. **mendava** Corbet 1941: ♂ Larut Hill, Perak; type B.M. and 1 ♀ Maxwell Hill, Malaya.

(d) ♀ F 15 mm.: above as *ammonides*, unf as *paraganesa*, unh as *ammonides*, with a conspicuous large white spot mid-costa and apex broadly white.

Sub-sp. **hammon** Fruhstorfer 1914: ♀ Java; type B.M. Figured in *Rhop. Java* as *ammon*. 2 ♀ Java.

4a (3). Unf spot in space 4 out of line. Sexes not alike.

4 (5). Unf spots in spaces 3 and 4 quite separate. ♂ F 18 mm., rather pale blue, border a thread in dry season form, 2 mm. at apex F to 1 mm. at dorsum in wet season form (*ellisi*). ♀ like *ganesa*, above and below. Fig. Seitz 150*B d*: Corbet 99 g.

aberrans De Nicéville 1888: ♂ Ataran. 1 ♀ Sikkim. 5 ♂, 11 ♀ Assam. 48 ♂, 48 ♀ N. Burma to Ataran. 1 ♂ Yunnan.

Synonym *ellisi*: Evans 1914: ♂ Maymyo; type B.M.

5 (4). Unf spots in spaces 3 and 4 overlap.

birmana. Two sub-species. Fig. Corbet 77 and 100 g.

(a) ♂ F 17 mm., rather dark blue, border 4 mm. at apex to 2 mm. at dorsum and 2½ mm. on H, narrower in dry season form. ♀ above as *ganesa*, seasonally variable. Below of the *ganesa* type: unh may be uniform or with a large white subcostal and apical area.

Sub-sp. **birmana** Moore 1883: ♀ Karens; type B.M. 20 ♂, 27 ♀ Manipur. 42 ♂, 27 ♀ N. Burma to Ataran. 1 ♂, 1 ♀ Hong-Kong. 1 ♂ "Sumatra".

Synonyms *arisba* De Nicéville 1891: ♂ Tilin Yaw, N. Burma.

corthatha Fruhstorfer 1914: ♂ Hong Kong.

dascia Swinhoe 1917: ♂ Karens; type B.M.

maymoica Tytler 1926: ♂ N. Shan States; type B.M.

(b) Smaller, ♂ F 15 mm., border broader: ♀ border much broader: no white-edged dark spot at end of cell.

Sub-sp. **asakuræ** Matsumura 1910: Formosa. 2 ♂, 2 ♀ Formosa.

Synonyms *uchidae* Matsumura 1926: ♂ Formosa.

oryuzana Corbet 1941: Formosa: placed as the Formosan form of *paraganesa* with Wileman as author (not traceable); type B.M.

6a (3b). Below, markings not darker than the ground. Unf spot in space 4 out of line.

6 (7a). Unh in space 7, central spot generally not nearer to the discal than to the basal spot: tornal metallic scaling absent, or rarely, vestigial.

ammonides. Five sub-species. Fig. Corbet 79, 80 and 102 g.

(a) ♂ F 15 mm., dark blue with broad borders, 4 mm. ♀ paler blue, border 6 mm. and on H only vestigial blue scaling in cell. Unh generally with large subcostal white spot.

Sub-sp. **elira** Corbet 1941: ♂ Assam; type B.M. 11 ♂, 9 ♀ Assam.

(b) Larger, ♂ F 16 mm. Unh no large white subcostal spot.

Sub-sp. **bowringi** nov.: ♂ Hainan; type B.M. 3 ♂, 1 ♀ Hainan.

(c) ♂ F 14 mm., bright shining light blue, sexes alike; border 5 mm. at apex to 2 mm. at dorsum and on H. Unf with conspicuous white subcostal spot: apex unf and unh whitened.

Sub-sp. **ammonides** Doherty 1891: ♂ Tenasserim; type B.M. 7 ♂, 4 ♀ Ataran. 7 ♂, 3 ♀ Tavoy. 4 ♂, 5 ♀ Mergui. 2 ♂, 2 ♀ Victoria Point.

(d) Intermediate to *chunsu*. Above, duller, borders as in *ammonides*: below as *chunsu*.

Sub-sp. **monava** Corbet 1941: ♂ Langkawi Is.: type B.M. Only the type.

(e) ♂ above, duller blue, border 5 mm. at apex to 3 at dorsum and 4 mm. on H: ♀ paler, with narrower borders, like *ammonides*. Unh subcostal white spot conspicuous, but apex unf and unh not whitened.

Sub-sp. **chunsu** Fruhstorfer 1914: ♂ Sumatra; type B.M. 2 ♂ Malaya. 23 ♂, 3 ♀ Sumatra.

7a (6). Unh, in space 7, central spot nearer and linked to the discal spot: tornal metallic scales present.

7 (8). Unh no white spot separating the central and discal spots in space 7. Small, ♂ F 13 mm. Above, dark blue with broad border, as in *ammonides*. Fig. Corbet 78, 82 and 101 g.

ariel Doherty 1891: ♂ Assam; type B.M. 1 ♂ Assam. 1 ♂, 1 ♀ Malaya. 1 ♂ Borneo.

Synonym *antis* Corbet 1941: ♂ Malaya; type B.M.

8 (7). Unh with a white spot between the central and discal spots in space 7. ♂ above, dark blue, border $\frac{1}{2}$ to 1 mm.

ammon. Two sub-species. Fig. Corbet 81 and 103 g.

(a) ♂ F 16 mm. ♀ bright blue to purple, borders as in *ammonides*. Below, purple washed: subcostal white spot H conspicuous.

Sub-sp. **ammon** Hewitson 1862: ♂ Singapore; type B.M. 14 ♂, 12 ♀ Singapore.

(b) ♂ F 17 mm. Below, not purple washed. Unh subcostal white spot inconspicuous.

Sub-sp. **sarawaca** Moulton 1912: ♂ Borneo; type B.M. 1 ♂ Borneo. The described ♀ is a ♂ of *ariel*.

P. GENUS **FLOS** Doherty 1889

1a (6a). H produced at tornus, vein 1b = vein 2.

1b (5). H tailed.

1c (3a). Unh discal band in spaces 7, 6 oblique and tapered from apex to end-cell spot.

1 (2). Unh with a bifid spot mid-costa, separated from the dark basal area.

diardi. Two sub-species. Fig. Corbet 84 and 106 g.

(a) ♂ F 23 mm., dark purple-blue, no border: ♀ purple with broad borders.

Sub-sp. **diardi** Hewitson 1862: ♂ India; type B.M. 1 ♂, 1 ♀ Sikkim. 21 ♂, 11 ♀ Assam. 26 ♂, 5 ♀ N. Burma to Mergui.

(b) ♂ clear dark blue instead of purple-blue.

Sub-sp. **capeta** Hewitson 1878: ♀ Sumatra; type B.M. 1 ♂, 1 ♀ Peninsular Siam. 1 ♀ Langkawi Is. 5 ♂, 1 ♀ Malaya. 2 ♂, 5 ♀ Sumatra. 4 ♂ Borneo. 14 ♂, 12 ♀ Java. 1 ♂, 1 ♀ Palawan. 1 ♂ Mindoro. 1 ♂, 1 ♀ Philippines.

Synonyms *viardi* Staudinger 1889: mis-spelling.

almansor Fruhstorfer 1914: ♀ Malaya; type B.M.

amha Fruhstorfer 1914: ♂ Borneo; type B.M.

asatha Fruhstorfer 1914: ♂ Java; type B.M.

2 (1). Unh dark basal area continued as a band to mid-costa.

fulgida. Three sub-species. Fig. Corbet 85 and 107 g.

(a) ♂ F 22 mm. Above, dark purple-blue, as *diardi*.

Sub-sp. *fulgida* Hewitson 1863: ♀ "Philippines" (recte Sikkim); type B.M. 17 ♂, 17 ♀ Sikkim. 12 ♂, 12 ♀ Assam. 17 ♂, 20 ♀ N. Burma to Tavoy. 1 ♂, 1 ♀ Siam. 1 ♀ Cambodia.

(b) Above, clear dark blue, as *diardi capeta*.

Sub-sp. *singhapura* Distant 1885: ♂ Singapore. 3 ♂, 3 ♀ Malaya. 5 ♂, 3 ♀ Sumatra. 1 ♂ Nias. 5 ♂, 2 ♀ Borneo. 1 ♀ Cambodia.

Synonyms *tifata* Fruhstorfer 1914: ♂ Sumatra; type B.M.

batis Fruhstorfer 1914: ♂ Sumatra; type B.M. Like typical *fulgida*: ? wrong label or variety.

zohar Fruhstorfer 1914: ♂ Borneo; type B.M.

tenea Fruhstorfer 1914: ♂ E. Java; type B.M.

(c) ♂ F 20 mm., above, as *fulgida*. Unh the central and discal markings in space 7 much enlarged.

Sub-sp. *zilana* Fruhstorfer 1900: ♂ Bazilan; type B.M. 1 ♂, 1 ♀ Bazilan. 1 ♀ Mindoro.

3a (1c). Unh discal band in spaces 7, 6 broad, overlapping end-cell spot and the discal spot in space 5.

3 (4). H single short tail at end of vein 2, as in *fulgida*. ♂ F 21 mm., above as *fulgida*. Below, darker, generally as *fulgida* except for the discal band unh: also the tornal metallic scaling is more extensive than in any other species. Clasp of genitalia with end broadly rounded instead of pointed as in *fulgida*.

bungo nov.: ♂ Nias, Kalimungo: I. Z. Kanniegieter, January, 1896; type B.M. 2 ♂ Nias.

4 (3). H long tail at end of vein 2 and a short, white-tipped tail at end of vein 3. Large, ♂ F 25 mm. Generally as *fulgida* but purple colouring of ♀ restricted. Fig. Seitz 150d.

kühni Röber 1887: ♂ Bangkei; type B.M. 3 ♂, 1 ♀ Bangkei.

Synonyms *imperiosa* Fruhstorfer 1914: Celebes. Fig. Seitz 162a.

lompana Ribbe 1926: ♂ Bonthain, Celebes.

5 (1b). H no tail, short tooth at end of vein 2.

anniella. Three sub-species. Fig. Corbet 86 and 108 g.

(a) ♂ F 19 mm.; brilliant dark purple-blue, no border: ♀ shining blue (sometimes purple) with broad borders. Unh, basal and central markings obscured by the dark ground.

Sub-sp. *artegal* Doherty 1889: ♀ Tavoy; type B.M. 3 ♂, 2 ♀ Bhamo. 10 ♂, 3 ♀ Karens. 7 ♂, 5 ♀ Ataran. 2 ♂, 2 ♀ Tavoy. 7 ♂, 7 ♀ Mergui. 2 ♀ Siam.

(b) ♂ F 22 mm. ♀ generally purple. Unh basal and central markings more or less conspicuous.

Sub-sp. *anniella* Hewitson 1862: ♂ Singapore; type B.M. 2 ♀ Peninsular Siam. 8 ♂, 8 ♀ Malaya. 10 ♂, 8 ♀ Sumatra. 10 ♂, 8 ♀ Borneo.

Synonyms *triangularis* Bethune-Baker 1903, as Staudinger MS.

husaina Fruhstorfer 1914: ♂ Sumatra; type B.M.

(c) Differences not clearly described by author.

Sub-sp. *malangana* Toxopeus 1927: ♂ Java. None in B.M.

6a (1a). H rounded at tornus, vein 1b shorter than vein 2.

6b (11a). Unf conspicuous quadrate white spot mid space 1 b.

6c (10). Tailed.

6d (9). Tail long, 3 mm.

6e (8). Unh basal third more or less variegated.

- 6 (7). Unh without ternal metallic scaling. ♂ F 21 mm., dark purple, border 2 mm. ♀ blue with broad borders. Unh variegated grey and brown, markings blurred.
- adriana* De Nicéville 1883: ♂ Sikkim. 29 ♂, 29 ♀ Sikkim. 2 ♂, 3 ♀ N. Burma to S. Shan States. 1 ♂ Siam. Fig. *Lep. Ind.* Same genitalia as *asoka* of which it may be a dimorph or an ecological sub-species: it is not a seasonal form.
- 7 (6). Unh with ternal metallic scaling and clearly defined whitish markings on the dark brown ground. Above, as *adriana*, but border upf in ♂ narrower, 1 mm. Fig. Corbet 110 g.
- asoka* De Nicéville 1883: ♂ Sikkim. Fig. Seitz 150B f. 24 ♂, 24 ♀ Sikkim. 2 ♀ Assam. 13 ♀ N. Burma to S. Shan States. 1 ♀ Yunnan. 3 ♂, 4 ♀ Hong Kong.
- Synonyms *chola* Moore 1884: ♂ Sikkim; type B.M.
vaya Fruhstorfer 1914: ♀ Hong Kong; type B.M.
- 8 (6e). Unh basal third plain dark brown, marked as *apidanus*. Unf narrow white bar in cell and the dark discal band very broad. ♀ light blue colouring much restricted.
- arca* De Nicéville 1893: ♀ Celebes: figured. None in B.M.
- 9 (6d). H tail short, 1 mm. Unh with ternal metallic scaling. ♂ F 22 mm., shining dark blue, border 1 mm. at apex, ½ mm. elsewhere. ♀ purple with broad borders. Fig. Seitz 150e.
- chinensis* Felder 1865: ♂ Shanghai; type B.M. 10 ♂, 14 ♀ Sikkim. 3 ♂, 3 ♀ Bhutan. 17 ♂, 17 ♀ Assam. 1 ♂ W. China. 1 ♂ Shanghai.
- Synonyms *moelleri* De Nicéville 1883: ♂ Assam.
lazula Moore 1884: ♂ Sikkim; type B.M.
- 10(6c). H no tail. Unh no ternal metallic scaling. Similar genitalia to *chinensis* and differs therefrom as *adriana* differs from *asoka*. Fig. Corbet 88 and 111 g.
- areste* Hewitson 1862: India. 1 ♂, 1 ♀ Nepal. 8 ♂, 8 ♀ Sikkim. 1 ♂, 1 ♀ Bhutan. 15 ♂, 15 ♀ Assam. 11 ♂, 14 ♀ N. Burma to Ataran. 1 ♂ Malaya. Coll. Höne (Leipzig) contains 68 ♂, 45 ♀ from Chekiang and 1 ♂, 1 ♀ from Kwang Tung: only 1 ♂ of *chinensis* from Chekiang, as well as an apparent hybrid between the 2 (?) species.
- Synonyms *patuna* Moore: ♀ Nepal; type B.M.
arestina Evans 1925: ♂ N. Shan States: type B.M.
- 11a (6b). Unf no conspicuous quadrate white spot mid space 1b.
 11b (13). Tailed.
 11 (12). H tail long, 3 mm.
- apidanus*. Seven sub-species. Fig. Corbet 87 and 109 g.
- (a) ♂ F 20 mm., dark shining blue, border 1½ to 1 mm.; ♀ pale blue, border broad. Unh central pale area contrasting conspicuously with the basal and sub-ternal dark areas; ternal metallic scaling vestigial. Back of uncus centrally concave instead of rounded.
- Sub-sp. *ahamus* Doherty 1891: ♀ Assam; type B.M. 1 ♂ Chittagong. 4 ♂, 8 ♀ Assam. 1 ♀ Bhamo. 2 ♂, 8 ♀ Karens. 4 ♂, 3 ♀ Ataran. 2 ♂, 2 ♀ Tavoy. 2 ♂, 2 ♀ Mergui. 2 ♂, 2 ♀ Siam. 1 ♂ "Sumatra".
- (b) Duller, darker blue: ♀ more purple. Below, more uniform, like *apidanus*.
- Sub-sp. *saturata* Snellen 1890: ♂ Billiton. 9 ♂, 11 ♀ Malaya. 1 ♂, 5 ♀ Sumatra. 2 ♂, 2 ♀ Banka. 12 ♂, 18 ♀ Borneo.
- Synonyms *kartaphilus* Fruhstorfer 1914: ♂ Malaya; type B.M.
berossus and *viribus* Fruhstorfer 1914: both ♂ Borneo; types B.M.
- (c) Below, looking very different from *saturata*, plain brown unh, no violet washed pale central area and ternal metallic scaling more extensive: ♀ above, purple-blue area more extensive.
- Sub-sp. *phalakron* Fruhstorfer 1914: ♂ Sumatra; type B.M. 4 ♂, 11 ♀ NE. Sumatra.
- Synonyms *ambigua*, *anabas*, *astrophila*, *anthracophila* Toxopeus: Sumatra.

(d) ♀ purple-blue area more extensive. Below, like *phalakron*, rather than *saturata*, but has more sheen and more extensive metallic scaling.

Sub-sp. *xisuthrus* Fruhstorfer 1914: ♀ Nias; type B.M. 3 ♂, 9 ♀ Nias.

(e) As *saturata*, but ♀ blue. Very variable.

Sub-sp. *apidanus* Cramer 1777: ♂ Surinam (recte Java apud Staudinger, 1889). 16 ♂, 16 ♀ Java. 1 ♂ Bali. 1 ♀ Djampea. 1 ♂, 1 ♀ Sumbawa. 1 ♂, 1 ♀ Tambora. 3 ♂, 7 ♀ Lombok.

Synonyms *dorimond* Stoll 1790: Cape of Good Hope (recte Java apud Seitz, 1928).

canes and *antipaxus* Fruhstorfer 1914: both ♂ Java; type B.M. *alter* Toxopeus 1929: Java.

(f) Like *apidanus*, but larger. ♂ F 24 mm.

Sub-sp. *arahat* Fruhstorfer 1914: ♂ Bawean; type B.M. 12 ♂, 12 ♀ Bawean.

(g) ♀ purple above. Unh central pale area as conspicuous as in *ahamus*.

Sub-sp. *palawanus* Staudinger 1889: ♂ Palawan. 3 ♂, 4 ♀ Palawan. 1 ♂, 1 ♀ Mindanao. 1 ♂, 4 ♀ Luzon. 7 ♂, 3 ♀ Mindoro. 4 ♀ Philippines. 1 ♀ Celebes.

Note.—The variation in *apidanus* forms (*phalakron* and *saturata*) flying together recalls the *adriana-asoka* and *chinensis-areste* relationships.

- 12 (11). H tail short, 1 mm. Uncus end triangular. ♂ F 19 mm. Above, as *apidanus*, duller blue: ♀ purple with very broad borders: uph cell only purple. Below, very variable, but unf dark discal band very broad, as in *arca*: red areas at base costa F and H often very conspicuous: unh pale central area narrower and more sharply marked.
- iriya* Fruhstorfer 1914: ♂ Bazilan; type B.M. 3 ♂, 3 ♀ Bazilan. 1 ♂, 1 ♀ Luzon. 15 ♂, 6 ♀ Mindanao. 1 ♂, 1 ♀ Mindoro.

- 13 (11b). H no tail, termen quite smooth and on unh narrowly white-edged.

morphina. Two sub-species. Fig. Corbet 89 and 112 g.

(a) ♂ F 25 mm., brilliant shining dark blue, border a thread. ♀ paler purple-blue, border 4 to 1½ mm. Unh basal quarter black, outer third darkened, central pale brown area with faint markings.

Sub-sp. *morphina* Distant 1884: ♂ Perak. 9 ♂, 2 ♀ Malaya. 2 ♂, 1 ♀ Sumatra. 3 ♂, 1 ♀ Borneo. 1 ♀ Palawan.

(b) Smaller, ♂ F 23 mm., duller form.

Sub-sp. *sidicina* Fruhstorfer 1914: ♂ Battak Mts., NE. Sumatra. 1 ♂, 6 ♀ NE. Sumatra.

APPENDIX

1. *Amblypodia* Horsfield 1829 v. *Arhopala* Boisduval 1832

Horsfield (1829) (*Cat. Lep. E.I.C.*, page 87), under "Genus *Thecla*" describes the larva, either as in Pl. 4, figs. 3 and 4 (sub-genus *Amblypodia apidanus* and *helus*), or as in Pl. 4, fig. 2 (*Thecla xenophon*). At the end of page 88 he separates *Amblypodia* from *Thecla* on the basis of the antennae, clubbed in *Thecla*, gradual in *Amblypodia*. After describing the various species of *Thecla* ("strictae sic dicta"), he describes on page 98 Sub-genus *Amblypodia* on the basis of the antennae and the larvae referring to Pl. 4, figs. 3 and 4. He divides the species of *Amblypodia* into 5 sections: No. 1 *narada*. No. 2 *vivarna*. No. 3 *apidanus*, *centaurus*, *helus*, *eumolphus*. No. 4 *sugriva*. No. 5 *vulcanus* etc. On page 111 he says he considers the third section to be typical of the sub-genus *Amblypodia*.

Westwood (1852) (*Gen. Diurn Lep.* 2: 477) lists the species of *Amblypodia*, placing *Arhopala* as a synonym. He says that the types of the genus are the large Indian *Amblypodias*, *centaurus*, *apidanus*, *helus*, *anthelus* etc. He commences his list of 32 species with Horsfield's section 3, following with sections 1, 2, 4, 5, adding several species not included by Horsfield.

Boisduval (1870) (*Lep. Guatemala*: 14) specifies, without comment, *narada* as the type of *Amblypodia*.

Scudder (1875) (*Proc. Am. Ac. Arts & Sci.* 10 : 108) rejects Boisduval's type selection because of Westwood's previous limitation and he selects *apidanus* as the type.

Moore (1881), Distant (1885), De Nicéville (1890), Bethune-Baker (1903), Bingham (1907) and Swinhoe (1911)—all regarded *narada* as the type of *Amblypodia*.

Riley (1922) (*Entomologist* 55 : 25) pointed out that Horsfield had considered his third section to be typical of his genus and consequently Boisduval's selection of *narada* from the first section was incorrect and that Scudder's selection of *apidanus* must be adopted. He created *Horsfieldia*, type *narada*. Seitz (1926) and Evans (1925 and 1932) followed Riley's lead.

Corbet (1940) (*Proc. R. ent. Soc. Lond.* (B) 9 : 4) wrote—"It is considered that Horsfield's assertion that he considered his third section (comprising *apidanus* Cramer and 3 other species) as typical of his sub-genus *Amblypodia* 1829 does not constitute a type selection, so that the first valid type selection for *Amblypodia* was that by Boisduval (1870), who specified *narada* Hsf. Mr. N. D. Riley is in agreement with this interpretation of the rules of the International Commission for Zoological Nomenclature". In his subsequent work Corbet used *Arhopala* Boisduval for all the species included in this review.

Corbet is correct in saying that Horsfield made no "type selection", for under the International Rules of Zoological Nomenclature as they currently exist and are interpreted, since Horsfield did not specify any *single* species as typical of his *Amblypodia*, any subsequent author was free to select any one of the five species Horsfield originally included. It is unfortunate in many ways that Boisduval, when selecting a type species in 1870, did not choose one of the two species (*apidanus* and *helus*) which fitted the description of *Amblypodia* so much better than did the other three species, for by doing so, much subsequent argument could have been avoided. However, as things stand, *narada* must be accepted as the type species of *Amblypodia* and the irregular but understandable action taken by Riley in 1922 set aside. The species included in the genus *Amblypodia*, in this sense, are not dealt with in this review and the genus is therefore excluded from consideration. Fortunately the species which first Scudder and later Riley incorrectly selected as they type species of *Amblypodia*, namely *apidanus*, is also the type species of *Flos* Doherty (1889) so the group of species which it typifies is not left without a generic name.

A really unfortunate outcome of my revision of the *Arhopala* group and its sub-division into definable genera, has been the restriction of the exceedingly well-known name *Arhopala* to a small Papuan group of 5 species of which *phryxus* is the type, leaving *Narathura* Moore as the generic name of the great bulk of the species hitherto referred to *Arhopala*.

2. *Narathura eridanus viola* Röber

Bethune-Baker (1903) listed on page 46 *Amblypodia viola* Röber as a synonym of *Arhopala padus* Felder. Then on page 51 he describes and figures as a new species *Arhopala viola* Semper (non *viola* Röb.) based on 1 ♂ and 2 ♀ from Mindanao, which Staudinger had sent him for examination. It has been ascertained from Dr. E. M. Hering of the Berlin Museum that the specimens were destroyed in the war. The figures do not agree very well with the few specimens in the B.M. over the label sub-sp. *dilutior* Staudinger from the Philippines, but until more material becomes available, the coining of a name does not seem necessary.

3. Identity of *Arhopala kounga* Bethune Baker

The ♂ and ♀ of this species were described and figured by Bethune-Baker in 1896 as from Borneo. In 1903 he placed *kounga* ♀ as a synonym of *azinis* De Nicéville and remarked that *kounga* ♂ "is a curious form of *aroa*", in dealing with which species he makes no mention of *kounga*. Corbet (1941) used the name *kounga* for the ♂ described by Bethune-Baker and created a number of sub-species, beginning with *valanda* from Burma.

It is considered Bethune-Baker's 1903 action restricted *kounga* to the ♀ and the name is used in this review for the Bornean sub-species of *azinis*. *valanda* replaces *kounga* as the specific name for Corbet's "*kounga*" series, whereof the Bornean sub-species (*kounga* of Corbet nec Bethune-Baker) is *ridleyi* Corbet.

4. Identity of *Amblypodia atrax*

Hewitson (1862) (*Cat. Lyc. B.M.* : 13) described *atrax* ♂ and ♀ from India in coll. B.M. He figured the ♀ and remarked that the ♂ might belong to a different species. The ♂ is labelled "E. Indies" and the ♀ "Bengal". The ♂ (recte *aida* De Nicéville) occurs only from mid-Burma to Malaya and Indo-China. The ♀ (recte *atrax*) is a common species of the plains of India, extending to mid-Burma.

Moore (1865) (*P.Z. S.* : 774) records *atrax* from Calcutta and thus became the first selector. In 1884 he cites *atrax* (quoting Hewitson's figure), as the type of his genus *Satadra*.

De Nicéville (1889) describes *aida* from mid-Burma and figures the ♂, which = the B.M. specimen of Hewitson's ♂ *atrax*. In 1890 he follows Moore in using *atrax* for Hewitson's ♀ and remarks that Hewitson had undoubtedly mixed up 2 species. In 1891 he described and figured ♂ and ♀ *alemon* from N. Burma : the ♂ is a specimen of *atrax*, while the "♀" is a ♂ of the species described as *alax* by Evans (1932).

Bethune-Baker (1903), wrongly over-riding the principle of the first selector, insists that Hewitson's ♂ must be taken as the type of *atrax* and he describes the species represented by Hewitson's ♀ *atrax* as *hewitsoni*. He considers *aida* to be a strongly marked form of his *mindanensis* and *alemon* he thinks comes near to his *hewitsoni*, replacing it in certain districts of Burma.

Swinhoe (1910) (*Lep. Ind.*) followed Bethune-Baker, describing and figuring as different species, *aida*, *atrax*, *alemon*, *mindanensis* and *hewitsoni* : his figure for the ♀ of *alemon* is correct.

Evans (1925) (*Identification Ind. Butt.*) followed Bethune-Baker, but put *aida* and *mindanensis* as synonyms of *atrax*. In 1932 (2nd edition) he put *hewitsoni* as synonym of *alemon* and described *alax* as the species taken by De Nicéville to be the ♀ of his *alemon*.

Corbet (1941) generally followed Bethune-Baker, putting *aida* as a synonym of *atrax*, *mindanensis* as a synonym of *rafflesi* and *hewitsoni* as a synonym of *alemon*.

It is considered that Bethune-Baker was wrong in over-riding Moore's selection of Hewitson's ♀ as the type of *atrax*. An attempt has been made in this review to straighten out the tangle by regarding *atrax* (= *alemon* and *hewitsoni*), *alax*, *mindanensis* and *aida* as species.

5. Identity of *Arhopala pseudomuta* Staudinger

Distant (1885) (*Rhop. Malay.*) described and figured a species he called *Narathura amphimuta* Felder.

Staudinger (1889) correctly pointed out that Distant's species was not the *amphimuta* of Felder and he renamed it *pseudomuta*.

De Nicéville (1890), in ignorance of Staudinger's action, acted similarly, calling Distant's species *rafflesii*. In 1895 he sunk his name to Staudinger's *pseudomuta*.

Bethune-Baker (1903) stated that *pseudomuta* is quite a distinct species from *rafflesii* and he figures what he calls *pseudomuta*.

Swinhoe and Corbet follow Bethune-Baker.

Bethune-Baker's figure of *Paedomuta* portrays a species entirely different from that figured by Distant and is here renamed *delta* (A21). *rafflesii* is correctly placed as a synonym of *pseudomuta*.

6. Identity of *Papilio centaurus*

Fabricius (1775) described this species as blue with a fuscous edge : from New Holland : in Mus. Banks.

Horsfield (1829) (*Cat. Lep. E.I.C.* 2 : 102) recorded *centaurus* from Java and stated that the type was in Mus. Banks.

Doubleday (1847) (*List Lep. B.M.* 2 : 24) recorded *centaurus* from Queensland and created *pseudocentaurus* for the *centaurus* of Horsfield from Java etc. Westwood (1852) (*Gen. Diurn. Lep.* 2 : 478) follows suit.

Horsfield & Moore (1857) (*Cat. Lep. E. I.C.* : 40) record *centaurus* from Sikkim, Assam and *pseudocentaurus* from Java.

Felder (1860) (*Wiener Ent. Monat.* 4 : 395) creates *nakula* for the Sumatran and Malaccan form of *centaurus* from the Indian continent.

Butler (1869) (*Cat. Lep. Fab. in B.M.* : 179) states that the type of *centaurus* is in the Banks Collection and that it agrees with Felder's figure in the *Reise Novara* of his *nakula*. This determination was accepted by all authors.

Corbet (1941) (*Proc. R. ent. Soc. Lond.* (B) 10 : 100) stated that "The specimen in the Banks Collection, which has hitherto been regarded as the type of *centaurus* is one of 2 males (without locality labels) which agree with Felder's *nakula*, were probably obtained by Koenig in Malaya and there is every reason for supposing that neither specimen was in the Banks Collection when Fabricius described *centaurus*. Moreover, the original description applies to a ♀. The original description fits best the ♀ of *Arhopala eupolis* Miskin and it is a reasonable assumption that the type was obtained by Banks in N. Queensland".

It is incorrect to say that Felder's description must apply to a ♀ and there is no evidence to support the assumption that the specimens now in the Banks Collection were not those seen by Fabricius. Many of the localities recorded in the early part of the last century have been found to be incorrect. Apart from Doubleday, who makes no mention of the Banksian specimens, all authors have regarded *centaurus* as coming from the Oriental region and all entomologists whom I have consulted, agree that there is no justification for any departure from the conclusions reached by Butler in 1869.

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